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ECONOMICS

BY

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PREFACE

The main function of a college training is not to acquire facts or formulae but to give the members of the college community the ability to analyze a proposition, to develop initiative when facing a new situation, to use brain power. It is the purpose of this volume, intended as a short text for college students, to offer the fundamentals in economics with a hope that it may aid its readers in meeting the business problems which will sooner or later confront nearly all college graduates.

This textbook is intended to cover a one-semester course in economics. Abstract theoretical discussion has been reduced to a minimum. The references and the questions at the end of each chapter are only suggestive.

F. T. C.

Cleveland, Ohio
January, 1931

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ECONOMICS

CHAPTER I

WHAT IS ECONOMICS?

What Are We to Study? What are we to examine, analyze, study? What is the sort of phenomena with which we are to deal? Men and women are all creatures of wants, of desires, of aspirations, which are satisfied, or which we attempt to satisfy, through various sorts of activity—work and play. In economics, we deal with man and his multitudinous and varied wants, particularly his material wants, and the methods of satisfying those wants, whether good, bad, or indifferent, whether intense or weak, whether fairly permanent or ephemeral. Our attention is also directed toward the tools or instruments, such as money and credit, farms and factories, utilized in the process of obtaining commodities and services which enable men, women, and children to satisfy their wants. Economics investigates the activities of human beings which lead to the production of goods and services, and also those which are concerned with the utilization or consumption of those goods and services.

Neither Robinson Crusoe nor the American pioneer had a complicated science or art of economics. In modern complex society, however, the satisfaction of human wants involves many complex problems. We are concerned not with one individual or one family but with a multitude of interacting persons who compete and coöperate in a bewildering variety of ways. Economics is now clearly a social science, but it is not a science in which the theorems can be proven mathematically. There are too many variables. Economics bristles with controverted points; and points of view change with modifications in the business world. Old rights and principles which looked eternal and fundamental in the days of handwork and of small-scale industry, appear antique and outgrown in the epoch of big business, networks of railways, and world markets. The student of economics should look, or at least try to look, on both sides of a question, and then draw his own conclusions. In many other subjects, such as language, ancient history, and chemistry, we have no preconceived notions or secondhand theories. All is new to us. On the other hand, in economics, the everyday industrial and economic life of the times in which we are living is considered. All of us possess our preconceptions and our class or interest bias when we approach various topics in economics. This fact adds to the fascination as well as to the difficulties in the study of economics.

We are so accustomed to obtaining certain goods and services when and where we want those articles that we forget to visualize the great underlying piece of social mechanism, the business world. Our economic or industrial organization, the business world, is in actuality a great tool or machine operated for the purpose of satisfying the wants of the great mass of men and women. It is the ambitious purpose of economics to study this giant machine, its parts, interrelationships, functions, and wastes, and the methods of improving its operation and of increasing its output. The problem of economics is to investigate and to attempt to understand the forces which cause men to work hard day after day, year in and year out, and which develop an organization that furnishes food, clothing, shelter, and comforts for multitudes. The business world does not necessarily operate in a haphazard and unsystematic manner; and, if the business mechanism breaks down at any point, we immediately feel the evil effects in scarcity and want. Effects follow causes in the sphere of social and economic relations as surely and as definitely as in the physical world. The problem is complex, but the solution is urgently needed.

In economics, the material wants are stressed. Business is sometimes held up to view as a great mechanism for the purpose of producing more and more goods. Produce in order to produce more. But, from time to time, the reminder should be given that the end and aim of life is not merely the production and utilization of multitudinous commodities and services—automobiles, bread, jewelry, clothing, preaching, shoe blacking, healing, garbage collecting, and so on through a long and ever-lengthening list. What is produced and how it is produced are of greater importance than the indiscriminate demand for more and more production. The practical is not the sum total of life. Although difficult to define and outside the direct field of our study, there are esthetic, cultural, or spiritual values and satisfactions which are deeper, richer, and more satisfying than the urge to conspicuous and extravagant utilization of material goods and personal services. In the words of A. S. Johnson, "We cannot have the good things of life—leisure, a friendly attitude toward our fellows and a sense of well-being within ourselves, the pursuit of knowledge and the cultivation of art—unless we take our souls out of the economic process. We shall have to work in order to live, but when we have secured what is essential to living, we must learn to stop, and turn to other activities." We need to develop an "active appreciation" of leisure, and the capacity to use such time decently. Business for the sake of business is a futile and overworked slogan. In the words of Glenn Frank, "to man as an intellectual and social being, the three most important things in life are education, religion, and politics."

Formal definitions of economics offered at the outset are not satisfying. They do little to dispel the haze. It may, however, not be inappropriate to present two definitions of our subject. According to Professor Thorp, economics "is the study of the processes whereby society attempts to satisfy the wants of its members. From the point of view of the individual, it is the study of why and how he gets as much as he does and some other person gets more." Professor Carver insists that economics has to do with man's escape from want. It is concerned with the technique of production, exchange, and utilization of goods and services, by means of which the people of the world are being lifted out of a condition of great scarcity and poverty into one of relative plenty and greater comfort, into a condition in which unessential as well as essential wants may be satisfied.

Until recently, writers on economics have held the view that wages, prosperity, business cycles, and other phenomena of the economic world were largely independent of human action. Fluctuations in the economic realm were automatic or certain to happen. Now, we are coming to believe, and to act upon the belief, that depressions can be in part eliminated, that the business cycle can be, in a large measure, smoothed out, that wages are subject to modification by union and managerial pressure, and that it is possible to direct within limits other forces operating in the economic world. This new point of view calls for a scientific study of these forces. Economics is a science and an art. The students of economics are adopting the scientific attitude; they are concerned with cause and effect; they are searching for the truth in the maze of conflicting forces and interests. The purpose of economics is twofold: (1) the improvement of human life and the reduction of poverty, and (2) aiding the individual in getting a living.

A Useful Art. In this book, an attempt is made to present economics as "a useful art." It may aid the engineer and the business man in discerning the forces which make the business world move. It may be of assistance in analyzing the way in which the world is getting its living, and the means of lifting the level of human comfort and enjoyment. Engineers are being admitted in increasing numbers into the inner councils of business. They are no longer mere outsiders and paid advisers; they are taking the steering wheel. We are living in a kaleidoscopic world. Business men and engineers are finding new and better ways of doing things. The well-informed person has marked advantages in dealing with new and strange situations. The engineer and the business man should look for cause and effect as diligently and intelligently in economics as in physics or chemistry. The physical world does not possess a monopoly on action and reaction.

Much of our economics, political ideas, and philosophical concepts is based on a rural environment, personal independence, small production by means of hand tools, and the fierce competition of small business units. Within two generations, science and the machine have transformed the Western World. The majority of the population live in cities, each of us is very dependent upon the efficient functioning of other workers, interdependence has in a large measure replaced independence, the machine and science have multiplied productivity and helped to banish extreme scarcity. The old virtues of frugality and of personal liberty look faded and out of date. Competition long held to be the automatic and beneficent power which made for economic and social good is now looked upon as a fomenter of anarchy in business and is being modified and displaced by means of mergers and regulation. Economics should today be reinterpreted in the light of a new industrial era—a difficult matter because of lingering traditions coming from the past and because of social inertia. Ideas, as well as machines, suffer from obsolescence. We live in a world distorted by tradition and custom, and filled with social institutions which are modified or re-formed slowly.

Americans are statistically minded. The "apparatus of information" is well developed, and masses of statistical data are available; but the primary difficulty is connected with faulty interpretation of the facts and figures, tables and charts, which the business man, the engineer, and the statistician now have available. A brief excursion into the realm of economics should not be a mere fact-finding quest; it should give a background for the thoughtful analysis and understanding of the forces and tendencies manifested in the changing industrial world of the present. The purpose should be primarily that of getting understanding.

Questions

1. Contrast city life of today with the life of the pioneer.
2. Classify ways of getting a living.
3. Give examples of social inertia. Of industrial inertia.

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CHAPTER II

EVOLUTION OF MODERN INDUSTRY

Methods of Getting a Living. The business of getting a living is as old as the human race; but the methods of getting a living have changed greatly from time to time as men have passed out of the primitive hunting and fishing stage into the period in which agriculture was practiced by isolated groups using simple implements, and then into an era in which towns began to appear and craftsmen devoted their attention to special forms of work—an era in which exchange and local markets became common. Finally, the more advanced industrial nations passed into the machine, factory, and power epoch characterized by greater division of labor, wider markets, railways, and much economic interdependence. Industries passed into the factory stage at different times. Indeed some, like the arts and crafts and shoe repairing, have not as yet reached the factory stage. Recently, in the more advanced industrial nations of which the United States is the best example, mass or standardized production is becoming typical of many industries. Mass production is marked by extreme subdivision of labor, by the great increase in use of automatic and semi-automatic machinery, by teamwork, by the application of scientific methods, by the separation of ownership from management, by the demand for regularity, repetition, and standardization, and by the rise of human engineering.

Changes in methods of getting a living have vital effects upon government, upon morals, upon home life, and upon human relationships in general. Social and political changes as recorded in the annals of history are very closely connected with modifications in the means of doing the world's work. Today's civilization is literally built upon the past. The opportunities and comforts of today rest upon the foundations laid by generations of long-forgotten men and women who had their own problems, difficulties, fears, loves, and triumphs. Many civilizations have risen and disappeared in the oblivion of antiquity. Our own civilization differs peculiarly from those of the past in that it is primarily industrial, and also in that it is productive to a degree hitherto unknown. The present, as compared with past epochs, is one of relative plenty. The revolutionary advance in the arts of communication and of direct production has brought the peoples of the world out of isolation and scarcity, and has confronted them with new economic, political, and social problems which past experience helps but little to solve.

The point of view of a man and his personal characteristics are in a considerable degree the resultants of the occupation he follows, the way in which he gets a living. The roving, hunting, and fighting tribesman of the primitive world was very different from the land-cultivating, stay-at-home farmer of today. The frontiersman of early American life had many characteristics not fostered by the routine and repetitive work of mass production as found in large manufacturing plants. The primitive man and the pioneer knew little of routine, of regularity, of being a slave to the clock. Our ages-distant ancestors and the frontiersman laid much stress upon luck, magic, and guesswork. The primitive man hunted and fought at irregular intervals. He took little heed of the morrow; work was not on his short list of virtues. Uncertainty, the alternation of famine and plenty, leisure today and strenuous exertion tomorrow, ennui of idleness today and tomorrow the climax of a thrilling hunt, were typical of the long ages of the primitive world in which the great fundamental characteristics of human nature were molded. The primitive man constantly faced the world of nature. On the other hand, relative certainty, the doing of the same things today and tomorrow that were done on many yesterdays, the humdrum level of a reasonable standard of living—unless the job is lost—are today's portion. The great uncertainties of today in the normal times of peace are the prosaic and unheroic ones of unemployment and sickness. The home and working environments of the city and shop worker are man-made—paved streets, rented homes, municipal water and lighting, commercialized amusements, the artificial thrill of the melodrama on stage and movie screen. The discipline of the machine age runs counter to deep-seated impulses and social habits.

Only in recent years, after much experience with the machine, are science, reasoning, and careful planning being widely used in the economic world. In the new industrial era of mass production emphasis is being placed upon regularity, cost accounting, research, teamwork, low labor turnover, and the careful selection of a labor force. As has been indicated, there have been many and diverse types of industrial-work-organizations. Indeed, because of this diversity, it may easily be concluded that there is no "right" industrial organization for all men, times, and places. The industrial methods of the pre-Civil War period or of the pre-World War era are now out of date and inefficient for the operation of today's equipment. And today's methods and programs may be expected to be inadequate and out of date in 1950.

Growth of the Social Point of View. The primitive, ancient, feudal, and pioneer stages of human life and activity were characterized by isolation and a large degree of economic independence. The manorial group of the feudal period produced practically all that it consumed. Little was exchanged for commodities produced by outsiders. The American pioneer was likewise in a large degree dependent upon the efforts of himself and family for food, clothing, and shelter. Economic life was simple. Exchange was infrequent and abnormal. In case of an exchange, goods were usually given directly for goods—butter, corn, or skins for sugar, axes, or grindstones. On the other hand, since the development of the factory system, and especially in recent decades, a high degree of specialization and of exchange of goods and services has been attained; exchange and economic interdependence are now fundamental and normal. The worker helps as one of a large group to produce an article which may be ultimately sold to some one on the other side of the continent or world. He buys with his money the goods and services produced by others whom he may not know. The business world of our time is a great market for exchanging goods and services. In all the earlier epochs of the world's history goods were utilized chiefly by those who produced them. Today the producers of particular commodities rarely consume these articles. Goods are primarily made for sale, not for "home" consumption. Price has become of prime importance in the business world. The miner mines coal; he exchanges his specialized services for a tool of exchange, money in some form, and with this tool he buys food, clothing, shelter, and miscellaneous goods and services. The physician heals the sick for a fee in terms of money, and with the money buys his necessities, comforts, and luxuries, and makes his investments. The manufacturer directs a great enterprise and his profits appear in terms of money. It is this very new and very different world of increasing complexity and productivity which is to be studied. Many of its problems are quite different from those confronting the primitive man, the pioneer, or even the pre-World War world.

Today, in every American city and village, the full coal bin and the food for three meals daily are family problems plus; they are in reality nation-wide problems. Modern industrial society can only be kept going in case each type of worker—farmer, miner, railway man, truck driver, clerk, fireman, technical expert, and so on—does his part in an efficient manner and on time. If the workers themselves or the technical experts become convinced that they are being exploited in the interests of others, if as a consequence they become sullen, resentful, and suspicious, serious trouble is just ahead. The increasing interdependence of the members of a community or of a nation is a marked phenomenon of recent decades. Man in an industrial society is no longer an independent economic unit. The transformation of a pioneer economy into an industrial and exchange economy spells not only startling changes in methods of getting a living but also in social relationships and concepts of individual rights and duties toward fellowmen.

There is probably no more of "slackerism," the following of the famous line of least resistance and general evasion of duty, in recent years than in earlier generations and centuries; but the intricacy and interdependence of modern industrial life make it more easily noticed and more dangerous. What one does now affects much more vitally the welfare of others outside one's immediate family circle than in preceding years. The laziness, "slackerism," or inefficiency of the pioneer affected others but little. Today inefficiency, carelessness, and waste are social problems. An injury to one is indeed an injury to all. We are truly becoming our neighbor's keeper; and our neighbor's work or waste is of importance to us.

A specific example will show clearly the basic economic problems thrust upon us by interdependence. In our cities milk is practically a necessity. Ordinarily it appears regularly at the breakfast table of the city dweller. Why? How? If we attempt to answer these two questions, we shall directly or indirectly touch upon the aims and activities of multitudes of workers living and dead—farmers, truck drivers, railway workers, manufacturers, glass workers, miners, bankers, merchants, delivery men, physicians, lawyers, labor leaders, business managers, policemen, technical experts, and so on. Then we shall in turn meet questions of price, of wages, of profits, of competition, of monopoly. Why does milk cost the consumer so many cents per quart? How much goes to the farmer? Why not more? Or less? What is a fair division of the consumer's money among farmers, milk-wagon drivers, railways, and milk companies? How do you know it is or is not divided fairly? Does any one know? If a group is not satisfied with its share, has it the right to prevent the milk from reaching the city consumer? Has the community the right to insist that the milk provided and sold shall be clean and pure? Why? These and many other questions relating to the production and sale of milk, or of any other commodity or service, furnish the raw material for the study of economics. We cannot expect complete and final solutions of these problems, but out of such studies may come the background for the intelligent discussion and tentative solution of economic problems.

Business is rapidly becoming a public function; it is no longer to be considered solely a private matter. Americans, and Europeans in even a larger degree, are accepting the idea that the owner of a business can no longer operate it exactly as he pleases. Private property rights are being narrowed in several directions. The right of the investor to act as the sole director of industry is being questioned. The workers, technical, skilled, and unskilled, are demanding with increasing vigor a voice in industrial management. The age of isolation, localism, and group independence is now a matter of history in a great industrial country such as the United States. Several centuries ago the feud and the duel began seriously to interfere with the welfare and business affairs of persons and groups not directly concerned in those quarrels. Presently, public opinion began to deprecate the use of such crude and violent methods of settling disputes. As a last resort for those who were unable or unwilling amicably to settle their own disputes, the law courts were invented. Disputants were coerced into having their quarrels adjudicated by the court instead of repairing to the ancient practice of private warfare.

Modern complex industrial society may logically be compared to a delicate and intricate animal organism. To stop the functioning of a key industry may entail disastrous results similar to those of cutting the arteries of a human being. Wars, international and industrial, may easily ruin modern industrial civilization and usher in a new Dark Age. Civilization is a guarded area of relative peace in which teamwork is essential. If industrial friction, sabotage, mutual suspicion in industry, autocratic and arbitrary methods on the part of employers, and increasing emphasis upon class consciousness continue and develop in intensity and scope, a social and industrial breakdown is ahead. Men must live and work together peacefully or civilization will inevitably revert to savagery. There is needed today a sense of common interests and of common perils.

The steadily mounting importance of regularity, certainty, and efficiency in industrial functioning can be pictured readily by hastily comparing the old well with its famous moss-covered bucket and the city water-pumping plant, the tallow candle of the pioneer and the electric power station with its radiating network of wires, the ox-cart and the steam locomotive with its accompanying freight cars or passenger coaches, the butchering day of the farmer and the packing houses of Chicago, the village blacksmith and the United States Steel Corporation. In each case the vivid contrast is between a small, independent, and socially unimportant unit and a large unit upon the efficient functioning of which multitudes of widely separated human beings are dependent.

In the metropolitan area of Greater New York dwell ten millions of people. This great aggregation of men, women, and children is provisioned ahead only for about three days. Much of its perishable food, including some of its milk supply, is brought from Ohio on the west and Florida on the south. Shut down for any reason a city water plant, a transcontinental railway, or the coal mines of the nation, and very soon great groups of individuals and families suffer from hunger, cold, or thirst. An exhibit in the Smithsonian Institution at Washington indicates that the coffee which the American family uses is transported on the average 5,500 miles; oranges, 2,500 miles; oatmeal, 1,800 miles; lamb chops, 1,700 miles; sugar, 1,500 miles; and butter, 700 miles. The housewife buys each day her supplies from the grocer, probably a link in a chain of stores, located around the corner. How different from the situation which confronted the American pioneer!

During the eras in which primitive man lived, during the Middle Ages, in Colonial and Pioneer America, changes in methods of living and in getting a living came slowly. A generation saw little modification. Recently, and especially in the last generation, extraordinary changes have taken place. Industrial progress has been speeded up as never before in the world's history. The general use of the telephone, the automobile and good roads, scientific management, mass production and distribution, long-distance transmission of electricity, the use of concrete, the apartment house, the vacation habit, the moving picture, the radio, and the airship are tokens of changes which are revolutionizing within a generation our working, living, and leisure life. The inventors of the arc and the incandescent electric light were both living in 1928; but more progress has been made in lighting in fifty years than during a thousand years preceding 1880. The student may easily work out parallels in many other lines of development. Our next task is to analyze the production methods of today, to discuss their effects upon the lives of men and women, and to discern the probable lines along which national productivity may be further improved.

QUESTIONS

1. Give illustrations of the effect of new methods of getting a living upon home life and upon morals.
2. Give an example tending to show that the occupation of a man affects his point of view.
3. Contrast the environment of the primitive man with that of the worker of today.
4. Why is punctuality so important in the business world?
5. How would your home city or town be affected by the sudden stoppage of a "key" industry?

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CHAPTER III

CHARACTERISTICS OF MODERN INDUSTRY

The Tools of the Business World. Modern business is a process of specialized production and exchange. In contrasting modern complex industrial economy with the earlier and simpler ways in which men and women satisfied their wants, a multitude of significant features may be found, but three—power-driven machinery, transportation facilities, and money—seem to be basic. These are the great tools of the business world of today. Power-driven machinery has transformed the typical industrial worker from a tool-user into a highly specialized machine-tender or operator. Manufactured goods are no longer "made by hand." The average industrial worker has little opportunity to exercise initiative; his motions are semi-automatic and repetitive. His work is monotonous. Factories in which large groups are employed are clustered in and about great cities and industrial or mill towns. A comparatively small group of highly skilled planners, managers, and cost accountants have direct control and oversight of the factory. However, there are still many industrial fields in which the machine process has not as yet reached a high state of development—for example, household work and coal mining. Marketing is by no means as highly specialized as manufacturing.

In the last two or three decades the machine and power have attained a new and dominant position in the world of affairs. Mass or standardized production is now typical of important lines of manufacturing, merchandising, transportation, and mining. With the increasing use of machinery, the science and art of management rises to a position of major importance. Nearly everything which is bought and sold passes through the factory and is transported. Even staple food products, except fresh vegetables, fresh milk, and, in part, fresh fruits, pass through the factory.

The automotive industry is the foremost representative of a new type in industry—mass production, high total overhead expenses, and a tendency to reduce prices in order to reach a large group of consumers and to gain the economies of large-scale production. One cause which has been assigned to account for the superiority of the automotive industry is the "policy of passing on reduced costs to consumers." Two changes in production methods are especially noteworthy in the automotive industry: (a) increased use of automatic machinery, and (b) the use of machinery for handling and conveying materials and output. Consequently, the relative demand has decreased for skilled workers (craftsmen) and for laborers to carry or wheel materials and products. The wheelbarrow and the hand shovel are antiquated in large-scale industry. The amount of highly skilled work and of back-breaking work has declined relatively, and there has been a marked increase in the demand for machine tenders and assemblers. The machine is insistently calling for a new type of workers who may easily be fitted into routine jobs. The tendency is to stamp out individuality and originality from the mass of workers, to accentuate the importance of the planning room and of management. Mass production tends to make workers more and more alike in skill and outlook upon life and its problems; but it does also tend to displace the most automaton-like workers and to utilize machinery in their place.

In the sale of goods the vending machine is being used where salesmanship is not needed, where "goods sell themselves." In such cases, the vending machine displaces unskilled workers who have been acting as clerks. The automatic telephone with its dial is driving out the "phone girls," and the adding machine and computing devices are rendering unnecessary much routine clerical work. The automatic or machine "man" who can perform a simple round of operations is one of the recent wonders of the machine age. Whenever a simple operation requires repetition, a machine may be invented to perform the work. Whether the machine is or is not invented and installed is a matter of business finance rather than of industrial technique.

Men and Machines. Business as it is carried on today is favorable to machines rather than to men. Business is carried on in order to get more business. Savings are poured into industry in order that more machines and capital may be produced. Capital begets capital. The great Ford business has had a high birth rate. Capital valued at approximately one hundred thousand dollars has multiplied with little or no immigration or influx of dollars from outside investors until it is numbered by the hundred millions. This has taken place within a score of years. The annals of human birth rates exhibit no parallels. And, in this enormous and youthful machine plant or organism, mere human workers must obey without questioning the dictates of the engineers and business experts who act as the interpreters or high priests of business efficiency. Indeed, what is business efficiency today except conformity to the dictates of the amalgamated order of machines? The "fool-proof" machine—with the orderly processes of which the human being can only with difficulty interfere—is the high-water mark of machine technique.

The corporation is the acme of impersonality. Up to date the large corporation constitutes the finest token of machine domination and of human subordination. It is the crest of the wave that is submerging the old order of men and that is making us slaves of the machine process. Men may come and men may go as managers, owners, or wage workers without in the least affecting the even tenor of the progress of the corporation. The modern trust company in its advertising boasts of its superiority over the individual.

The preëminence of the machine is making the old life of semi-isolation with its emphasis upon individual and family traits chiefly a matter of historical significance. Street life, factory life with its groups of workers engaged in common tasks, the educational system with its large classes and units, common and standardized amusements, the growth of club and fraternity life—all tend to mark the members of industrial society with a similar stamp. Even the family, that stronghold of individualism, is seeing its influence upon child life gradually weakened. Medical clinics, hospitals, kindergartens, supervised public playgrounds, the public schools, the popular amusement house, the automobile, and the radio are all reaching out for functions that were the monopoly of the old-fashioned home of the isolated pioneer. And, furthermore, the working-away-from-home mother and the working-away-from-home children were unknown in the traditional American home.

Even in the educational world the struggle is on, more or less consciously, between those who advocate that the youth should be educated so as to make for initiative and thoughtful resourcefulness and those who would mold the youth to fit into the modern machine process and business technology as carefully drilled specialists who may readily become excellent valets of the corporation and the machine. In the world of machines, standardization is a word and process which is given high rank. Our school system has succumbed to the pressure of machine requirements. Pupils are being standardized and regimented in an unprecedented manner. The ideals of education are becoming deeply colored by the machine process. To turn the machine into a servant of man may be only the hope of a Utopian. Perhaps science can only be the friend and coworker of the machine. Nevertheless, if there be such a thing as social science, its function is to enable man to regain premiership in the realm of industrial institutions.

Fortunately, there is plausibility in the assertion that the evils of the machine process are due in a large measure to the incomplete expansion of the sphere of the machine, that industrial friction today is in a large measure a growing pain which will pass away with more complete utilization of the machine. If the present considerable restriction of immigration into the United States is continued for a few years, a notable laboratory experiment in social science may be worked out. Scarcity of workers and high wages furnish incentives to the wide-awake enterpriser to utilize more and more machinery. While the industrial progress of the United States has been hastened and its direction modified by the great influx of immigration during the last decades of the nineteenth century and the opening years of the twentieth, restriction of immigration will doubtless hasten further use of automatic machinery. The Iron Man may take the place of the semi-automatic worker. The fear that machinery necessarily calls for morons and other low-grade workers may prove to be unfounded. Adequate development of machinery may lead to the displacement of morons and the lower grades of unskilled workers by automatic machinery with skillful operatives and repairmen. The empire of the machine may prove to be in actuality the empire of the skilled worker, the trained technician, and the cultured human being.

The application of scientific methods will elevate many a task from the status of distasteful drudgery to that of a skillful and attractive job. This tendency is thrown into clear relief when a contrast is drawn between the operator of a steam shovel and the wielder of the old hand shovel, between the washing of dirty clothes by bending over the washboard and by means of the electric washer, or when a comparison is made of the engineer of a central heating plant and the fireman in a small flat. Harness a job to machinery, natural forces, and scientific knowledge, and the ugliness is often sloughed off. Indeed, a new dignity attaches to such work. A large supply of unskilled workers helps to tie the workers to the machine; the latter sets the pace. Limit the supply of unskilled workers, and the machine is requisitioned to do new tasks. The machine then becomes the tool of the worker.

Scarcity often gives distinction; it is an element in value. It is not unreasonable to argue that with increasing scarcity of workers willing and eager to perform menial and unlovely tasks may come a higher esteem for those who are willing to perform necessary but disagreeable tasks. In a large city the collection of garbage is an essential occupation; a scarcity of garbage collectors may lead to the ascription of more merit and the payment of higher wages to those who perform such tasks.

It is not entirely unreasonable to assume that civilization is only on the threshold of the age of machinery. The machine is introduced very slowly in countries where wages are low. Better training, on one hand, for the coming generation and, on the other hand, a decrease in the number of poorly trained or unskilled may lead in the next few decades to an unprecedented increase in capital and in output and also in dependence upon scientific methods. Machinery may become in truth the servant of an educated mankind. May it not be that the evils in our factories and workshops which are attributed to machinery are in reality the result of the partial use of machinery? Are not a great multitude of routine machine feeders and tenders doing work which the machine can and will perform if machine feeders become scarce and able to obtain high wages? With the use of machinery to feed machines, the demand for purely routine work decreases; the moron type of worker is no longer needed. Imperfectly developed machinery makes man the slave of the machine, but a fully developed machine age emancipates man from drudgery and unskilled work.

The skilled worker may become the normal type of American wage earner, and opportunities for high-grade positions may in the future depend less upon a great supply of unskilled workers than upon an adequate supply of capital. The fully developed Iron Man can be made the servant of man; the Iron Man may not necessarily be an evil spirit condemning vast hordes of humans to routine and drudgery. A notable increase in scientific and purposeful education may place mankind on the threshold of new and alluring possibilities of productivity, of social betterment, and of industrial peace. The problem of achieving industrial peace, let it be repeated, is one in social mechanics, and it is not Utopian to urge that the solution can be ascertained.

Mass Production. Mass production is accompanied by high overhead expenses—that is, expenses which are practically the same whether the plant produces a large output, is running part-time, or with a portion of the plant idle. The average value of machinery and equipment per worker in the normal manufacturing plant has increased considerably in recent years. Expensive and delicate machinery placed in the hands of inefficient or disgruntled workers is an invitation to financial disaster. Breakage, repairs, and overhead expenses bulk large per worker and per unit of output in plants where the morale of the workers is low. The good will of the employees becomes of increasing importance as the capital investment per worker mounts. Teamwork, contented workers, excellent morale, become the watchwords of wide-awake executives in large-scale industry. The urge of profit-making in business involving high overhead or constant expenses also directs the attention of management to the stabilization of business. The higher the overhead expenses as compared with those which vary in proportion to output, the greater the incentive to keep the plant running regularly and with a full force of workers. Mass production diminishes the relative importance of the speculative element in business, and, as interest in speculation fades, interest in technical processes, in human relations, and in the quality of product, grows.

Mass production with its increased use of power, machinery, and scientific management has resulted in a distinct decrease in the length of the average working day. Leisure is no longer the birthright of only a small group. The mass of workers are in sight of the eight-hour day and the five-day week. Increased leisure, in turn, will lead to increased desires for goods and services and to larger markets for the output of mass production.

In nearly all major lines of business activity except farming, the corporation has become the controlling factor. The corporation allows wide separation of ownership from management. Many stockholders in large corporations know little or nothing about the technique of the industry. They have never visited the plant or plants belonging to the corporation of which they are stockholders. Furthermore, the ownership of shares of stock changes from day to day as stock-market operations occur. The typical stockholder of a large corporation is absentee and drifting.

Another characteristic of modern production methods is the use of a staff of technical experts. Research is a tool of modern industry. The development of personnel departments and the rise of "welfare" activities mark other noteworthy steps in production methods. Mass production also implies standardization and simplification; it is characterized by low prices, low unit profits, and high wages. Production costs can be reduced to the lowest terms in the case of a commodity that can be highly standardized and that can be produced and sold in large quantities year after year without modification in style or quality. Mass production is literally production for the masses. The famous Model T Ford car represented the high-water mark in the economies of mass production. The machines used and the workers employed in the Ford factory were highly specialized. The expense of changing to meet new demands on the part of consumers is excessive in a large-scale business producing a highly standardized product.

The recent eclipse of the old Ford car discloses certain dangers which confront mass production. (1) It has limits in sales resistance. Constantly increasing standardization of output and continuity of operation in order to gain the economies of large-scale production mean wider and wider markets and more and more stress upon salesmanship. High-pressure salesmanship with rising sales cost is the inevitable accompaniment of mass production. Many plants have overbuilt in a vain effort to cut costs, only to lose the production economies in the added expenses of marketing an enormous output. Mass production finds its limits in high-cost distribution of its output. (2) As wages increase and as consumers utilize more purchasing power, uniformity becomes less desirable from the point of view of the purchasers. Style or non-uniformity is demanded. Mass production finally is in danger of finding itself in a serious dilemma. Economy in production demands uniformity and simplification; but sales costs rise with large output, and consumers begin to place increasing emphasis upon a product which is not standardized to a high degree.

Are we nearing the end of the era in which the economies of mass production are accorded first place in the eyes of business men? Are we passing into a new epoch in which the style demands of consumers and the rising cost of high-pressure salesmanship will check the tendency toward mass production carried to an extreme?

Questions

1. Has machinery improved the lot of the worker?
2. What is mass production?
3. What are the prominent characteristics of mass production?
4. Are there limits to mass production?
5. What kinds of articles are not suitable for mass production?

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CHAPTER IV

PRODUCTION

What Is Production? Production is the process of getting goods and services to men, women, and children, when and where wanted, and in the form wanted. Nearly all commodities bought and sold are the results of a process of production. In the broad sense of the term, production means the creation of utilities or qualities in goods and services which satisfy human desires. The manufacturer takes a lump of iron ore and forms it into a steel rail. It is his function to put a commodity into such form that it is usable. The baker makes bread out of flour. He produces form utility. The farmer, the miner, and the lumberman may also be classified as the producers of form utility. Workers who transport commodities from a place where there is a large supply and small demand at profitable prices to a place where there is large demand are called producers of place utility; the process may be called transportation production. The railway trainmen or truck drivers are examples of such producers. In the third place, men who hold commodities in storage until needed produce time utility. The operator of a cold-storage plant is a good example of the producer of time utility; he is concerned with storage production. The efforts of certain professional workers, such as musicians, physicians, and teachers, and of other workers, such as barbers and domestic servants, result in the production of services instead of commodities. This may be designated service production. The production of time and place utility will be considered under the general heading of marketing. In this chapter the discussion of production will be confined chiefly to form utility. However, certain fundamental principles are common to all types of production.

Factors in Production. Efficient production is the result of the proper combination of four factors in production: land or natural resources and forces, capital (tools and machines), human labor power, and managerial ability. The active, determining, and calculating factor is that of managerial ability. The manager or enterpriser of a business, whether it be large or small, makes decisions as to the product to be produced, and as to the relative and total amounts of land, labor, and capital to be used in the business unit. Management possesses or has easy access to the stores of accumulated knowledge or technique relating to industrial processes and methods. In a small one-man business it is clear where the managerial function is actually located, but in a complex business organized under the corporate form, no one man can be pointed out as exercising the entire managerial function. Those exercising managerial functions direct the enterprise and take the financial risks. The small stockholders in a large corporation bear many financial risks but they have practically no part in the active work of business management. On the other hand, a salaried employee who has little or no investment in the plant may make important decisions as to business policies. In recent years, through shop committees or other labor organizations, the wage earners are beginning to exercise some small degree of management. Under the corporate form of business enterprise management cannot be centered upon one individual. It is a function distributed among different persons. Good management in industry involves both leadership and organization. Excellent leadership of a disorganized and poorly coördinated group of workers inevitably means confusion and ineffectiveness, and an excellent organization without leadership will produce little. Good organization and good leadership are as essential in business as in football.

The new view as to production methods, sponsored by Henry Ford, is that increased profits come from increased demand, and increased demand results from the payment of higher wages and from lower prices. This plan for productive activity calls for large outputs at low unit costs. Good management is essential under the new business methods. Reduction of waste of materials, better equipment, improved organization of departments, greater individual efficiency, more teamwork between management and men, regularization of operation, cost accounting, more attention to lighting, sanitation, and other features which reduce sickness, fatigue, and unrest, and the utilization of the results of research are features of the new method of production. Back of this idea of business management lies the concept that the wages and standards of living of American workmen should not be reduced to any important extent, and, if reduced, would in turn spoil the market for goods produced under the mass production method.

Increased Productivity. The problem of increasing the efficiency of productive methods may be viewed from a negative and from a positive point of view. (1) On the negative side, the efficiency and sufficiency of production may be improved by reducing the demand for useless and harmful articles. This is primarily a matter of education. The education of the consumer is difficult, but the results of our efforts during the World War indicate that the task does not present insuperable difficulties. Four goals may be noted.

(*a*) Reduce the demand for useless articles.

(*b*) Reduce the demand for harmful articles.

(*c*) Reduce the demand for articles produced under dehumanizing conditions and increase the demand for goods produced under good working conditions.

(*d*) In case of two commodities practically equal in usefulness, center demand upon the one which can be most easily produced.[1]

(2) On the positive side, the problem is to get the desired goods and services produced with the least waste of human effort and of material resources. The task is one of management involving human and industrial engineering and cost accounting. How can efficient and effective factors of production be obtained? How can these factors be properly coördinated? On the positive side, productive efficiency depends in no small degree upon incentives, inventions, research, ability of individuals, teamwork, and the skill of industrial managers.

Incentives. The most important and complex work of the manager of a large business enterprise is not connected with the choice of tools and materials. It is concerned with the direction of labor, with the management of the human element in industry. The effective coöperation of the wage-earning group with one another and with the management can come only as the result of an appropriate appeal to potent incentives. For signal industrial advance there is needed scientific investigation of the incentives which lead to earnest endeavor and to eager teamwork. The growth of large-scale industry has separated the manager and the wage worker. The personal or face-to-face relationship typical of earlier industrial epochs is, except in certain small businesses, a matter of historical significance only. Personal loyalty to the employer and the mutual interest of employer and employee in one another are no longer potent factors in industry. The negative incentives of tongue-lashing and of fear of losing a job have been definitely proved to be inefficient. Eager, interested, and efficient workers can only be secured by means other than the blind application of traditional methods.

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[1] See Chapter on the Utilization of Commodities.

From the point of view of the community the ultimate reason for business activity is the production of goods and services which satisfy human wants. The entire mechanism of big and little business is for this purpose. The life of the community depends primarily upon the steady flow of products and services. The purpose of pecuniary payments is merely to accomplish this result. If profits and wages fail to bring excellent results, other incentives should be appealed to. And, what may such incentives be? In emergencies, other motives than pecuniary are habitually appealed to. Many of the kinds of achievements which history applauds have been wrought under the spell of other than the pecuniary motive. The worth-while work in science, literature, and art may in a large degree be placed in this class. In war and athletics, non-pecuniary motives are also important. In two factories of similar type the wage-rates paid and the plans for wage payment may be practically the same, but, because of different types of management and different treatment of the working force, the output per worker may vary appreciably. Our knowledge of the relative potency of different incentives is elementary.

Inventions. Again, the amount of goods and services produced for the community depends upon the invention of new processes and tools. While this fact is quite generally understood, little careful study has been made of the conditions which bring forth and stimulate inventors. Invention has hitherto been chiefly a haphazard process. Guesswork and luck have been pointed to as the guideposts of the inventor. Are men born inventors or do conditions make men inventors? How may society stimulate invention? Can invention be placed on a scientific basis? These are important questions from the standpoint of productive efficiency and industrial progress. It seems not improbable that scientific management may be applied to invention as well as to routine work of a factory, that invention may become deliberate or planned instead of "heroic" or accidental.

Research. To the business man of yesterday, the business world was one of mysteries. Hard work, courage, and luck were the only keys to success. Much of the unknown in physics, geography, astronomy, and other natural sciences has been translated into the known and the understood, but men have persistently looked upon the vicissitudes of the business world, upon booms and panics, upon depression and prosperity, upon successes and failures as matters beyond the yardstick of scientific investigation. But, today, the successful business man must of necessity plan for the future. His success or failure depends upon his plans. He must use statistics and research instead of hunches and guesswork. The up-to-date business man is using research and statistical methods to forecast business emergencies with the bright hope of greatly reducing the dangers which beset the course of the old-fashioned business man who scorned statistics and research. Today it is research and planning or a dearth of profits and numerous receiverships.

Industrial or business research is a systematic method of improving our ways of producing, marketing, and utilizing goods, of adding to our store of knowledge. Research is not a magical wand; it is not a cure-all for the ills which afflict the poorly managed establishment; it is a tool that, properly used, makes business judgment and experience more effective. Statistics may make evident past errors, but the chief purpose of appealing to statistics and research is that of preventing serious mistakes in the future. Business men will more and more use the results of research in order to anticipate coming events.

Trade journals, the publications of learned societies and of research organizations make it possible for the management of any industry to come into possession of important facts in regard to the latest developments in industry. Industrial success is no longer built upon carefully guarded trade secrets; it rests on the firm foundations of alertness in the utilization of scientific knowledge and of the results of research in the improvement of processes, materials, machines, and practices. Science is merely pointing the way toward effective endeavor. Many contacts between science and industry are being established. In production rule-of-thumb methods are being quietly and rapidly displaced by science, accuracy, cost accounting, and research. Accounting reveals hidden sources of inefficiency, waste, and loss. It presents an accurate picture of business as a going and developing concern. Research men are set to work investigating the problems involved in improving machines and methods. As the result of research, industrial psychology is beginning to yield valuable material which will be used to improve the art of management, the key to modern industrial control.

Ability of Individuals. The conflict between the exponents of heredity on one hand and of environment on the other as to the relative importance of each in determining the characteristics of men and women is as yet not entirely at an end. It is quite certain, however, that both heredity and environment are influential in determining the physical and mental characteristics of each individual. The traits of character demanded of the individual worker in the industrial world vary greatly with the type of occupation and of work. Honesty, sobriety, regularity, and punctuality are requirements upon which the modern industrial order places a high value. For the more highly skilled work and for executive positions much emphasis is placed upon judgment and initiative, but the average worker on jobs which do not require a high degree of skill is usually required to follow orders without deviation or question.

Teamwork. A football team of individual stars is not necessarily a dangerous antagonist of another team highly developed in coöperative effort or teamwork. Likewise, in an industrial plant, teamwork is an absolute requirement for efficient results. The acid test of good management is coöperative effort on the part of all grades of workers from the general manager to the man who sweeps the floor. The plant in which strikes occur or in which restriction of output and sabotage are recurrent features is almost without exception one in which the management is poor and traditional.

Importance of Management. Since the task of coördinating the other factors in production devolves upon those exercising the managerial function, the work of management is of great industrial import. The desirability of using scientific methods in selecting managers should be stressed. It is now left in no small degree to chance or to a "pull." What are the specifications of the managerial job? What type of man is required for manager? What sort of education is desirable? Is a special course of training essential? Economists and engineers who are stressing the ideal of productive efficiency are insisting that credit and directive opportunity be given to those possessing managerial and inventive ability instead of to those who merely possess wealth. It is clearly contrary to the fundamentals of welfare economics and national efficiency to commend highly an order of things which allows men ignorant of scientific methods actively to control and direct large business operations. It would be socially advantageous if industrial leaders, after they have made good in the business field, would turn their attention to the study of methods of improving industrial conditions and programs instead of retiring to devote their talents and money to philanthropy or other polite occupations. This would indeed be "public service in private business."

Differences in Productivity. Production is now largely carried on by organized and directed groups. A factory or a railway system is an organized group. The factory system has won its place in the industrial field because a group of workers, united into a team, can produce more than the same number of workers working independently and separately. One factory may be more productive than another because it utilizes:

Better buildings or equipment.
More efficient workers.
More effective teamwork between management and men, and between departments.
Better cost accounting systems.
Better methods of selecting and training workers of all grades.
More effective appeals to primary human incentives.

Pecuniary Productivity. From the standpoint of the business man—manufacturer, railway operator, or the manager of a storage plant—the primary purpose of doing business has been to make profits, to obtain a monetary income. The business man has not been first and foremost interested in producing goods, but the consumer wishes an abundance of goods and services at low prices. The business man is interested in production from the pecuniary point of view, but the community wishes physical productivity. Modern business produces for a market, and business welfare is measured from the pecuniary rather than from the physical point of view. Goods are made and marketed in order to make money, to obtain a profit. Making money does not necessarily mean the same as making goods. Business men have been concerned with "the strategies of cutting costs, of calculating price movements, of salesmanship, and of financing." From the purely business point of view physical production is a by-product of profit-making.

The attitude of the business man toward the output of his establishment will be governed by the exigencies of profit-making. Under certain conditions a sagacious business man will reduce his output of goods in order to keep up the selling price of each unit produced. Increased production in the industry as a whole may decrease the value of the total output. The farmers fear the consequences of a bumper crop of wheat. The monopolist often restricts output in the hope of obtaining for himself a maximum amount of profits. Mass production, with its large overhead expense and consequent reduction of unit costs as output increases, usually results in large physical production, low costs, and low prices. In mass production the quest for profits and the desire for large physical productivity tend to run in parallel channels.

The original basis of industry was service. Primitive, feudal, and pioneer peoples were primarily interested in making serviceable goods for their own utilization. In planning his work the pioneer asked: Do I want this product? Does my family need this article? With the growth of markets, specialists, and exchange came the gradual substitution of profits for goods as the prime motive for industrial activity. Today's industrial and money economy leads us to be interested primarily in money making. The making of serviceable goods is incidental only to profit taking. Benefits—profits—may often be obtained by monopoly or restriction of output, by disservice. The modern business man asks: Can this article be produced and sold for a profit? The pioneer was interested in natural conditions, such as the weather and the supply of raw materials; the modern business man is immediately concerned with prices and price changes. The business tool, money, has modified the direct aim of work-activity. Our problem today is to get back to the first principles of pioneer industry. The engineer's point of view needs emphasis. "The community needs service first, regardless of who gets profits, because its life depends upon the service it gets." How may affairs be so ordered as to give the greatest rewards to those who produce instead of to those who withhold, who are shrewd bargainers and speculators?

For a profit business men will work strenuously and efficiently for the production of disserviceable goods, provided the consumer has a taste for such goods backed by purchasing power. However, if he had a taste for disserviceable goods, the pioneer would produce them. Intoxicating liquors were not unknown in the homes of the pioneer. The producer produces what consumers demand. Change the demand of consumers and the producer is attracted to a new product. The producer is neutral as to serviceable goods or illth. Instead of attacking the money economy as the cause of waste and disservice, is not the direct line of procedure that of changing the tastes of the consumer? Furthermore, the money economy is a human institution. It is doubtless possible to modify the money economy so that it will become more serviceable.

The interdependence of human beings in the present industrial era because of specialization of occupations and exchange of goods has increased the desirability of fair treatment of fellowmen. The crude individualism and rugged independence of the frontiersman become menaces in the days of public utilities, pure food laws, and telephones. A willful group may penalize a city, may injure persons far distant and unknown, and stop the functioning of a great transportation system. The emphasis upon the rights of the individual that our fathers stressed must be decreased and more emphasis must be placed upon the rights of the bystander, the so-called general public. We recognize the need of this change in emphasis by speaking of businesses "affected with public interest." Industry calls for cooperation rather than for competitive action, for teamwork instead of individual and isolated effort. Harmonious and united action wins in the field of industrial endeavor as well as on the football field. The old problem of harmonizing authority and liberty, the rights of the individual and of the group, is a significant one today.

Welfare and Profits. Since the modern business unit is characterized by the separation of ownership and management, by the presence of large overhead expenses, and by the employment of technical experts,[1] it may not unreasonably be expected that the emphasis upon profit-making will give way in part to stress upon producing a serviceable and needed product at a fair price, or upon the offering of employment to wage workers at fair wages and under good working conditions. No simple or dogmatic conclusion can be reached. Certainly an industry must make profits—get a larger return than it pays out for running expenses—or it cannot long continue to serve either the community or its stockholders. Doubtless many business firms have not formulated well-defined purposes; and different elements in the business, such as investors, active managers, skilled workers, and common laborers, will not agree as to goals.

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[1] See Chapter on Characteristics of Modern Industry.

Given certain ends or aims upon which employers (investors and managers) and employees agree, it will not be difficult to unite in regard to the method which should be used to get results. But a scientific method may be used to accomplish results which may be held to be good or to be undesirable. Science may be utilized for destructive as well as for constructive purposes. The prime difficulty in regard to the introduction of scientific methods into industry and into the management of men will come because of differences in regard to aims, goals, or purposes. If the fundamental purpose is increase in dividends and, as a consequence, greater subordination is required of workers, we may expect a rising tide of antagonism on the part of the working group, or at least a lack of enthusiastic coöperation with the management.

Are individuals and groups in the United States gradually developing a sense of interdependence and of responsibility for social well-being? Are there visible forces operating today in the economic field which tend to reduce social irresponsibility? If so, can a national policy be outlined which will help in directing the pursuit of private wealth, income, and profits into channels which lead to the improvement of national and social well-being? Or, is it feasible through governmental action or through the efforts of private associations to develop regulations which will make easy the way toward greater emphasis upon social good? Glenn Frank has well said: "The American business man is at one and the same time profit maker and civilization maker." Can the conditions under which profit making occurs in the fourth decade of the twentieth century be made to aid in building civilization? These are important questions which are not to be answered in a spirit of undue optimism or complacency. It is urged that a calm and deliberate consideration of the problem will disclose certain positive forces or influences which are tending at the present time to direct the old and powerful profit-making motive into channels leading toward community well-being. The attention of the reader is called to a group of such forces which are guiding industry toward goals that look desirable to management, employees, and consumers.

Business management is gradually evolving into a profession.

The corporation easily makes it possible to separate ownership from management, to allow one group of men to own stocks and bonds, to be silent and absentee partners, while another, and usually a smaller, group drawing salaries has the active management of the industrial activities of the organization. The hired executives and the industrial experts who have little or no investment in the industry with which they are connected are comparatively new and attractive figures in the business world, but industrial evolution is tending definitely to separate the investor from the managerial expert. Management is becoming more and more hired management; it is not directly dependent upon risk-taking and profits for its income.

For good or for ill we are beginning to develop and accept new theories of managerial responsibility to employees, to customers, and to the public as well as to the stockholders and bondholders of a corporation. The new type of management is emphasizing regularity of operation, good quality of output, and excellent working conditions for workers. It approves of stability of business and of returns; it is interested in productivity and service rather than extraordinary pecuniary profits. The field in which the profit-making motive holds undisputed sway is being narrowed. The idea that industry can and should be improved and stabilized from within by the application of scientific methods and the acceptance of the long-run point of view is being looked upon with favor by more and more hard-headed business men. Science is being linked with business, and speculation is no longer looked upon favorably by the new leaders of industry. Science and trained industrial managers are together reducing risk and stabilizing business. The members of the investor group are interested in getting as large a return as is consistent with security of investment. But, in basic and established industries, the typical dividend return is diminishing as the risk decreases. Except in new and experimental industries, the tendency is toward a standardized return; the speculative element is becoming less and less prominent. Great fluctuations in business and an abundance of speculative opportunities have made for inefficient and careless management. "The days of profit margins sufficiently wide to absorb the mistakes of faulty management are rapidly drawing to a close"; a new era is at hand. The automobile industry, for example, is getting out of its initial and highly speculative stage. Progressive executives of today are especially interested in reducing costs and in stabilizing business. Only trained business men who are not watching the fluctuations of the stock market can bring about remarkable reductions in costs. Speculation is a stubborn foe of efficiency, of stabilization, and of science in business. The American nation has been paying too much for speculation.

Large corporate enterprises are planning for years to come. Management is now looking far ahead; it is building for the future. The policy of a business which aims repeatedly to resell to its customers will be far more solicitous about the quality of its product and the needs of its customers than is the little, short-lived business which looks no farther than today's sales and profits. The dominant business purpose or aim is clearly not the same in a public utility, such as an electric lighting plant, as it is in the case of a small grocery store or a Florida real-estate firm; it is quite different in the case of a large well-established department store from that which actuates the itinerant pedlar who does not expect again to visit a particular town. One takes a long-time view of sales and profits; the other is alive only to today's receipts. The long-time view more nearly harmonizes the selfish motives of enterprises and the needs of the community than does the short-run view. The aims of a corporation organized on a fairly permanent scale are less likely to be anti-social than those of a business which may be expected to close down within a short period of time. One must cultivate the good will of customers; the other cares little about the attitude of a customer after a sale is actually concluded.

Large-scale industry demands wide markets. High wages and a reasonable amount of leisure will mean larger markets for the output of large-scale industry. Low wages, long working hours, unemployment, and irregularity of employment, on the other hand, tend to curtail the purchasing power of the mass of workers. Since approximately 90 per cent of our trade is domestic, managers of big business must look to the building up of markets at home for their products, and a great home market can only be built up by putting purchasing power into the hands of the great masses of the population. The phenomenal growth of the low-priced automobile industry would be possible only among a people receiving a fairly large per capita income and maintaining relatively high standards of living. These and other influences[1] are tending partially to close the gap between profit-making and the welfare of the community.

QUESTIONS

1. Give examples of the production of time, place, and form utility.
2. What are factors in production?
3. Can farmers be too successful as producers of wheat?
4. How did profits gradually supplant goods as the aim of producers?
5. Why is fair treatment of fellowmen more important today than in pioneer times?
6. Do you believe that social responsibility is becoming increasingly desirable? Why?

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[1] For more complete discussion, see the writer's article in *The Journal of Social Forces*, Sept., 1928.

CHAPTER V

CAUSES OF INCREASED PRODUCTIVITY

Industrial Civilization Rests upon Science, Power, and Machinery. Throughout the early history of mankind and down to the opening of what is commonly called The Industrial Revolution beginning about 1760, the chief sources of power were the muscles of human beings and of animals. Productivity per worker was of necessity small. Until science, power, and machinery became team mates, scarcity and famine were the heritages of each and every new generation. Relative plenty with an opportunity for comforts, for "jam on the bread," has come only in recent generations with the ushering in of an industrial or power-machine civilization. We of today are living in an age of great productivity relative to any preceding epoch in the life of the race. In the United States, the first three decades of the twentieth century, and particularly the years 1922 to 1929, have witnessed the outpouring of an enormous flood of goods and services, and it is clear that we are by no means near the limit of our potential productivity.

Great groups of our population are still perilously near the bare subsistence standard of living. Beyond the deficiencies in such necessities as food and clothing for certain non-privileged groups, there is the need for better housing facilities, for more improved roads and bridges, for much greater use of electricity and electrical equipment in the home and on the farm, for new and better heating and refrigeration apparatus, for public works, such as flood control, ship canals, and public buildings, for increasing our educational and research plants and laboratories, for radio and air-craft developments, and for other comforts and conveniences. The problem of how to increase productivity and decrease waste continues to call for further study and for the application of engineering, human and mechanical. "Prosperity is a job for industry."

It is the purpose of this chapter briefly to consider the causes of the increase in productivity that have occurred since the depression of 1921. There are other considerations growing out of our new interlocking industrial civilization to which we can only allude without a detailed examination. What are the chief dangers and obstacles now confronting the industrial civilization of today? Are we in danger of another World War? Will continued increase in population ultimately endanger high standards of living? What will be the probable effects upon the people and upon civilization of the new methods of producing commodities? Can human beings with an ages-long heritage of scarcity and hardship continue strong and virile in an environment of prosperity, comfort, and ease? The forward thrust of industrial progress is placing before us new, difficult, and alluring problems for solution. We shall need all the wisdom and scientific knowledge the race possesses. Calm consideration of economic questions, not emotional outbreaks, is a prime need of the hour.

The utilization of power is one of the significant yardsticks in measuring an industrial civilization. The accompanying tables indicate the increasing use of power in the United States.

HORSEPOWER EQUIPMENT PER EMPLOYEE (Less pleasure automobiles)

(From the *Harvard Business Review,* April, 1928, p. 290.)

YEAR	HORSEPOWER
1849	1.44
1859	1.50
1869	1.53
1879	1.56
1889	2.05
1899	2.21
1909	2.96
1919	4.25
1923	5.31

The table on page 41 shows clearly the growing relative decline of agriculture as an industry, the marked increase in the use of power on steam railways since 1900, the very rapid rise in importance of electric central stations, and the decline in the use of

TOTAL HORSEPOWER EQUIPMENT IN EACH FIELD OF ACTIVITY [1]
(From the *Harvard Business Review*, April, 1928, pp. 283–284.)

YEAR	MANUFACTURES	MINES AND QUARRIES	AGRICULTURE	IRRIGATION AND DRAINAGE	ELECTRIC CENTRAL STATIONS	ELECTRIC RAILROADS	STEAM RAILROADS	SHIPS	AUTOMOBILES		WORK ANIMALS NOT ON FARMS
									TOTAL	BUSINESS ONLY	
1849	1,100	50	6,597				435	734			1,150
1859	1,600	150	9,655				1,940	1,142			1,306
1869	2,346	350	9,588				4,100	1,076			1,687
1879	3,411	650	13,764	5			7,720	1,110			2,160
1889	5,939	1,300	19,835	33	120	140	16,300	1,444			2,675
1899	10,098	2,868	23,519	120	1,200	1,079	20,900	1,900	32		3,055
1909	18,675	4,608	31,107	361	5,225	3,718	45,400	3,122	7,714	256	3,405
1919	29,505	6,724	43,722	816	15,250	6,327	72,300	6,584	230,432	10,964	1,979
1923	33,094	7,500	47,420	1,300	22,000	6,784	74,600	10,262	507,254	53,724	1,700

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[1] Horsepower in thousands.

work animals. The increasing use of power by our railways points toward more and more geographical specialization of industry, and the development of central stations indicates an increasing use of electricity for power purposes. It has been roughly estimated that the energy developed in the United States from coal, oil, and water power is equal to that of three billions of servants. Doubtless today this estimate should be made somewhat larger.

Characteristics of Modern Production Methods. Since the opening of the World War in 1914, our industrial methods and equipment have undergone such extraordinary changes as almost to constitute a new industrial revolution. Between 1899 and 1925 the output in physical units increased:

Of agricultural products	about 47 per cent
Of mining products	about 248 per cent
Of manufacture	about 178 per cent
Of railway service	about 199 per cent

The weighted total for these four branches of industry shows 140 per cent increase for the quarter of a century. The population of the nation increased about 55 per cent; consequently, the per capita output rose about 55 per cent. However, the addition of 140 per cent in the four industries was accompanied by a gain in the number of workers of only 34 per cent, or, the gain in productivity per worker was nearly 80 per cent. From 1919 to 1925 there was an actual decline in the number of workers in the four major industries, in the ratio of 100:93.[1] A well-known statistician, R. W. Babson, estimates that to produce the same number of automobiles in 1928 as in 1914 requires only 30 per cent as many workers; rubber tires, 40 per cent; cigarettes and cigars, 42 per cent; metal, other than iron and steel, 60 per cent; stone, clay, glass, and chemical products, 66 per cent; iron and steel, 76 per cent; food and kindred products, 80 per cent; paper, printing, and related products, 90 per cent; and textiles, 95 per cent.[2]

This significant increase in the productivity of American industry has taken place in the face of a reduction in the average length of the working day. The Department of Commerce has estimated that the length of the average working day in all branches of industry was shortened about 15 per cent in the period 1899 to 1927. In the years from 1922 to 1929 some very considerable reductions in the cost of manufacture have been recorded. It has been pointed out that,[1] in manufacture, production has increased, while the number of workers has decreased; that wages have risen, while costs per unit of output have decreased; that the investment in capital has increased, while costs have been cut; and that wages have risen, while the length of the working day has been reduced. To the traditional way of thinking about costs, wages, and the working day, these are paradoxical statements. Theoretically, these results are unexpected and incongruous. The experience of recent years in industry indicates quite clearly that high wages and a short working day may actually be economical and coincide with low production costs. A new vista is opened for the vision of the progressive industrial manager.

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[1] Report of the Secretary of Commerce, 1927, pp. XXVII ff.

[2] *Commerce and Finance,* August 22, 1928.

The causes suggested for the large per capita productivity in the industries of the United States are many. Before considering the special causes of the recent increase in productivity, our attention may be directed to certain of the more general influences which have operated over a longer period of time. This nation has within its borders vast and diversified natural resources in minerals, timber lands, fertile agricultural lands, water power, navigable lakes and rivers, and good harbors. Our population has been of a capable type possessing vigor, initiative, and inventive genius. Much emphasis has been placed from our earliest colonial days upon education. We have been able easily to obtain industrial equipment, power, and a good and extensive transportation system. This vast area with different economic possibilities in each section has not been handicapped, as has Europe, by internal tariff barriers. We have also been blessed with a stable form of government. Our domestic market has been unrivalled in the world in magnitude and diversity. These and other advantages have enabled the United States to become a great industrial nation; and these causes have not been inoperative during the last decade.

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[1] Alford, L. P., *Factory and Industrial Management*, September, 1929; also, *Recent Economic Changes*, Vol. I, p. 166.

However, the marked increase in output per worker in manufacture, mining, agriculture, and transportation from 1922 to 1929 cannot be accounted for by means of the older stock explanations of great productivity in the United States. Abundant natural resources, physical magnitude, the use of machinery and of power may explain the long-run superiority of American manufacture over European, but these influences were at work long before 1922. There is little reason for asserting that these advantages were especially potent in 1922 to 1929. It is doubtless true that greater emphasis upon standardization and simplification have helped to increase output. Another important factor in increasing output per worker is the use of conveyors and belts, and the placing of machines so that the human hand is not needed to put in or take out materials and products. In an up-to-date canning factory "it is literally true that no one sees the peas until the can is opened." Other forces must be searched for, however, in order adequately to account for the extraordinary increase in per capita productivity in American manufacture from 1922 to 1929.

The new element in the situation to which our attention should be directed is the increasing use of trained intelligence in managerial problems. The War and the period of depression from 1920 to 1921 marked the beginning of a new era in management. Personnel administration, industrial psychology, sales engineering, business forecasting, and cost accounting were given places in industrial programs by the abler and more far-sighted managers. The adoption of new methods of handling workers accounts for much of the increased production in certain lines of industry. More attention is being given to the factors discussed in the preceding chapter.

Obstacles to Increased Productivity. With proper application, we have today sufficient knowledge of industrial technique and sufficient equipment greatly to increase the total productivity of the nation above its present level. With growing complexity in the economic world comes greater need of coördination and also more difficulties in bringing it about. "An Institute of Industrial Coördination" might help. Unemployment, depressions, and enormous economic wastes may be reduced or eliminated by the use of trained industrial statesmanship. Sore spots in industry, such as farming, coal mining, and textile plants, may be cured. But there are obstacles which make progress toward a high-tide of productive efficiency slow and zigzag instead of rapid and direct.

1. The alternations of the business cycle[1] cause enormous losses, due to idle machinery and men, in a time of depression, and extraordinary and feverish activity and over-development in a period of apparent prosperity. Wars and industrial depressions are the most expensive luxuries of modern peoples.

2. Lack of coördination or of teamwork within an industry reduces productive efficiency. This may take at least two different forms. A business unit competing with many others may pay little or no attention to what competitors are doing. Farmers, fruit-growers, and soft-coal producers lack information as to what they are doing among themselves. They may presently discover that the productive capacity of the country has been over-developed for the profitable sale of the output. A condition of managerial anarchy, considering the industry as a unit, often obtains. Over-development, under-employment, irregularity, and inefficiency are the earmarks of maladjustment and of lack of teamwork within the limits of the industry considered as a unit. Again, each concern as a rule keeps secret as long as possible any new process or program which reduces costs or improves quality. In recent years the organization of institutes and associations for coöperative research, advertising, and buying is laying a foundation for better coördination in the future.

The lack of teamwork in industry is also manifested in the suspicion and antagonism between the management of an industrial establishment and the rank and file of its employees. The traditional attitude is one of working at cross-purposes. The wage worker has too often worked unwillingly and only under compulsion and fear. As long as workers are not interested in their work, are suspicious of the motives and the fairness of the management, are allowed to know very little about the industry in which they are employed, the sort of teamwork which brings into being the maximum of productive effort with a minimum of strain will not be obtained. Mechanical excellence, the utilization of power, and the application of scientific methods will not bring an industry to the high tide of productive efficiency until there is added such direction of the man-power as will bring about teamwork, until the morale of the organization is excellent.[1]

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[1] Discussed in Chapter on Business Cycles.

3. A third hurdle in the road leading toward productive efficiency is absorption in speculation rather than in the more prosaic technical processes of business enterprise. Too many who are in a position to direct industrial enterprises watch the stock market. They are speculators rather than engineers and business experts. While certain types of speculation [2] make for economic betterment, too much of the best talent of the nation is engaged in stock-market transactions. To direct an industrial concern with an eye to stock-market manipulation does not usually result in technical excellence.

4. The great mass of workers and managers are somewhat suspicious of new methods. They are inclined to cling tenaciously to tradition, to old methods and machines, especially if in the past these methods and machines brought good results. In these days of rapid evolution the old and tried methods or machines may be out of date and inefficient. "The price of success is constant adjustment"; and it is also the price of technical efficiency. The leaders of today must be ready to scrap machines, methods, and pet programs when a new and better machine, method, or program appears above the horizon. One of the barriers in the road to increased productivity is the worship of the policy which was successful last year or last decade, but which is now out of date.

Mental inertia and the pressure of custom and habit prevent many an individual from going off at a tangent into various vagaries and impractical programs, but these also take their burdensome toll in a changing age by slowing down readjustments and by leading many to apply old yardsticks to new situations. One of the fundamental tests of the usefulness of an educational system is: Does it or does it not aid students in continuing to grow mentally after they have left college halls? Or, is its human grist composed chiefly of men and women with closed minds? "The handicaps of transition" are not inconsiderable in an age of flux and kaleidoscopic transformations. When industry is moving forward with great rapidity, mental and social inertia tends to make our thinking, our institutions, and our political and economic programs lag behind.

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[1] See Chapter on Labor Management.

[2] See Chapter on Risk-Taking.

5. What may, for the want of a more expressive term, be called "politics" in the enterprise often interferes with the most effective operation of a business. Appointments may be made because of "pull" or relationship to important stockholders or officers instead of upon merit or the past record of the applicant. An executive may attempt to build a personal "machine" or a following of employees who will work well for him but "soldier" on the job for others. In turn, these followers are protected when mistakes are made and their advancement is favored. Again, a department head or other executive may neglect or be afraid to train one or more young men under him to be competent assistants. Each executive, for the sake of smooth and continuous functioning of the industry, should have a trained understudy. This matter is, however, only a phase of a much more inclusive topic—the proper selection of workers of all ranks. Selection and training united constitute an organized effort to put the right person in the appropriate place. Shop politics, haphazard selection of employees, and the lack of proper methods of training constitute important barriers on the road to larger productivity.

Benefits of Recent Industrial Progress. At the outset of this chapter certain dangers of industrial progress were briefly alluded to. It may not be amiss to direct the attention also to some of the benefits which arise out of recent industrial advances: (1) The total per capita output of goods and services has increased; (2) Diversification of consumption has been made possible because of the increase in productivity and in excellent market facilities, including those of transportation; (3) Greater leisure has become the birthright of the masses through the shorter working day and week; (4) Working conditions have improved. The workplaces are more sanitary, are lighted and ventilated more effectively, are safer, possess better toilet facilities than those of a generation or more ago. Furthermore, employing corporations are introducing insurance and recreation features which add attractiveness to the job. (5) Human engineering in up-to-date concerns has greatly improved the treatment of workers by the management. Much of the harshness and, too frequently, the brutality of the foremen in the typical factory, mine, or store of earlier days has disappeared. The worker is being released from the annoyances due to petty and arbitrary bosses. Industrial psychology is pointing the way toward better human relations in industry.

QUESTIONS

1. Give an example of increased productivity because of better relations between management and men.
2. Are we actually moving in the direction of coöperation and teamwork between management and men and away from antagonism?
3. The technique of large-scale industry is one primarily of the application of scientific principles under conditions of harmonious human relations in industry. Explain.
4. Do you think that the benefits of increased productivity outweigh its dangers? Why?
5. Professor Patten declared that we are living in a "pleasure economy." Explain.

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CHAPTER VI

NEW PROBLEMS IN BUSINESS

The Big Social Problem. The big problem of today in this complex, highly organized business and social world is to get the members of society so associated that they can live and work together peacefully. Peace between nations and within nations, international peace and domestic harmony, are vital to progress. Another big war will doubtless mean a new Dark Age. Continual industrial strife and friction—strikes, restriction of output, inefficiency, irregularity of business operation—are putting modern industrial civilization in great danger. The losses in connection with alternations of the business cycle are enormous, and the more intangible ones due to inefficient management and to indifference and distrust on the part of the workers are likewise distressingly great. There is extraordinary need for studying in a scientific fashion the problem of regularizing industrial activity and of reducing industrial wastes of various kinds. Interdependence and complexity in the industrial field are making clear the need of finding a practical solution. Stated in another way, the problem of the business world today is that of harnessing selfish interests so as to make for the welfare of society.

Mechanical Science Has Outrun Social Science. Mechanical or physical science is far ahead of social science or human engineering. We know more about steel and wool than about men, about buying materials than about hiring employees. Business still uses pack-pedlar methods in buying and selling labor power. We are far more scientific in our development of processes of treating petroleum, coal, and cotton than in those of treating wage earners. The problem of incentives in industry, for example, has scarcely been considered; nor, has it in education. However, industrial leaders are beginning to see clearly that the art of getting teamwork is more important than the efficient utilization of mechanical power. Too many business men have been proud that they are "practical" men. Too many have been blindly following "hunches," the methods of their fathers or of their younger days. But the fundamentals in the social sciences and in the art of handling men are found in psychology, in the study of human behavior. Unfortunately, the typical business man knows little more about human nature and industrial psychology than he does about advanced calculus. No mechanical engineer is ignorant of a working knowledge of physics; in like manner, an executive should have a reasonably good foundation in industrial psychology. Many managers of business resent any advice from workers or from outsiders as to improvements in their plants. The retort is frequently heard that the manager knows all about the plant. Too many managers are like the farmer of a few years ago who resented the efforts of the expert from the agricultural experiment station who tried to give him advice in regard to seed corn. The American farmer is now quite generally past this naïve stage of intelligence; but not so in the case of many business executives.

One of the common complaints is that workers are not interested in their work, that they restrict output, watch the clock, do not do a fair day's work. Yet, in many cases they seem to have energy and interest enough while watching or participating in a ball game. Many a lagging worker likes to do some job at home for himself or his family—and he will be interested in the task. Railway men will fight a vigorous campaign against snowdrifts. It has even been suggested that the business game is losing its zest for the executive as well as for the wage worker. If workers have lost interest and enthusiasm in their work, why have they lost it? If many men strike, "soldier" on the job, and practice sabotage, why do they do so? What is the reason? Is it because human nature is naturally depraved? Is it because of the artificiality and complexity of modern business with its excessive amount of repetition and routine? Or, is it because of traditional and unscientific managment?

How we can get interest and enthusiasm into the daily round of industry is a big problem. Surely the present order is on the direct road leading toward disintegration unless the great mass of skilled and unskilled workers and the managers, as well, can be led to work earnestly and efficiently, if not joyously. Efficient industrial management will develop teamwork; teamwork wins "in battle, baseball, and business." Efficiency is largely a human problem. A similar situation is found in education in our schools and colleges. If we could get in the classrooms the enthusiasm displayed over athletics, many educational difficulties would disappear. Pedagogy is far from scientific or teachers would be able to do a better job in tapping the sources of interest and vigor.

Old versus New Ideals in Business. The typical business of the familiar variety and the typical captain of industry of the older type laid stress solely upon profits for the managers and speculators. The traditional view of business has been that it took what it could from consumers and pinched employees whenever it was feasible. An air-tight monopoly of a necessity was the goal toward which all business men turned with longing eyes. The "go-getter" was an excellent representative of the old type of business man.

But in recent years many types of large-scale industry have been passing out of the purely speculative, stock-market, manipulative stage into a new phase in which emphasis is placed upon regular production for a reasonable profit from each unit of output. The business becomes primarily a productive enterprise furnishing an article or service which consumers want, rather than primarily a speculative affair with production as a necessary accompaniment. Service becomes a watchword, and monopolistic manipulation is no longer utilized by the progressive, wider-market-seeking concerns. The management begins to perceive the wisdom of catering to wide markets and of studying methods of building up such markets.

Production becomes the business goal. Low prices, small profits per unit, large outputs, and steady operation are the aims of the new type of business. The business administrator now strives to improve technical and personnel methods, reduce prices, and reach out for wider markets and new groups of consumers. If the market does not come to the new type of business man, he cuts prices and costs or improves the quality of the goods, and goes to the market. The workers are made to see that they can help to retain their jobs by reducing expenses and improving quality, and thus insuring a steadier market.

Henry Ford has proved that it pays in certain kinds of businesses to sell to the great masses of humanity, to lower prices until the common man is reached. Ford's experience indicates that such a policy is more profitable than monopolistic restriction of output and high prices. Not only is Ford rich but he is also popular with the rank and file of American citizens. A presidential candidate is anxious to have his active support, but no presidential candidate of recent years has been eager to have the active and open support of the old-fashioned captain of industry whose idea of successful business enterprise was contained in a monopolistic wrapper. Of course the Ford plant is not making machines at or below cost; the profit-making motive is not absent. But the new type of business enterprise is being operated so as to emphasize increased production; restriction of output is placed in the background rather than in the foreground of the picture of business practices. Under the new type of business, profits come as the direct result of efficiency and the reduction of prices. This policy enables the enterpriser to reach new layers of purchasing power and permits large outputs. Under the old formula of business success, a profitable business was one which possessed monopoly power—restriction of output and exploitation—or speculative opportunities.

A High Degree of Continuity. Furthermore, the old type of business placed little emphasis upon regularity of operation or continuity of service. The new type is making regularization of industry a goal. Workers are beginning to protest against the business manager who cannot regularize his business or dovetail it with others. One of the reasons for asking for a share in management is the hope that greater regularity may be introduced as a consequence. The living expenses of workers and their families continue fifty-two weeks in the year; hence, the need of regular income.

Undue optimism in regard to the newer tendencies in business should be avoided. However, this drift toward a new goal does not receive its impulse from altruism; the motive force grows definitely out of the conditions under which large-scale and forward-looking businesses are today operated. It is pertinent, however, to inquire whether Ford's views as to higher wages, a shorter working period, and wider markets are likely to appeal, for example, to the Pullman Company in its relations with the porters employed on Pullman cars? Will this newer goal look good to the manufacturer selling an article of luxury to customers not in the wage-earning group? One must be very optimistic to answer these questions in the affirmative.

If, nevertheless, the new type of industrial management is beginning to place production paramount to selling and financing, it is the trained engineer or the industrial-relations manager who will gravitate into the position of general manager. The engineer, unlike the financier, is interested primarily in product rather than in values, in output rather than in restriction of output and in scarcity. In the past, unfortunately, the economist has too frequently joined hands with the financier, the profit maker, and the stock-market manipulator. In the future the economist is likely to find his place by the side of the craftsman, the engineer, and the new type of business manager. When the engineer and economist join forces, a new era in industry will have opened. The fundamental business problems will be those of utilizing science and scientific methods in the industrial field instead of rule of thumb and guesswork, of substituting regularity of operation for irregularity, of replacing speculation and insecurity with investment and relative security, of insisting upon production rather than upon profits standards.

The New Class of Business Managers. The day of the much praised, post-Civil-War captain of industry is rapidly passing. The typical, old-fashioned captain of industry was a self-trained, vigorous, ruthless, competition-crushing individualist. He gloried in fierce business rivalry and in his ability to get out of difficult and menacing business situations. The best representative of the new type of business administrator that is being developed is a well-trained individual. His strategy is not that of the self-reliant and defiant fighter; he emphasizes careful planning, the council table, and the utilization of experience and science. The new type of business manager aims to avoid getting into desperate business situations. He considers himself to be a professional man with duties to perform in the interests of a three-fold clientele—investors, employees, and the consumer or, more broadly, the general public. "The administrative group finds itself in a pivotal position as the trustee of the property of investors, as the teacher and leader of the operative force, and as a delegate responsible for the preservation of certain public interests." [1]

A new profession is in the making. This new, active managerial class may be expected in the future to stand midway between labor and capital. The urge of dividends and the pressure of unionism do not directly and immediately touch the salaried technical expert. His interest lies primarily in good and efficient work under decent working conditions, in the quality of the output, and in the safety of the mills, mines, or railways under his control. His college training leads him to emphasize professional ability and skill rather than mere money-getting and dividend-making. The business leader of the near future will, it seems safe to assert, be more than a well-trained man. He will also be in sympathetic touch with the workers in his plants. Such a man will possess the long-run point of view—the view of the industrial psychologist. He will be able to develop good-will among the workers. The new business leader will be a leader, not a driver, of men. The highest type of personnel director or executive will weld his organization into a coöperative unit able to do enthusiastic teamwork. It will not be a mechanical automaton actuated by the negative incentive of fear of losing jobs.

Purpose in Industry. What are the goals of business in general or of a particular establishment? Is it the aim of a business to make profits, to produce a serviceable and needed product at a fair price, or to give employment to wage workers at fair wages and under good working conditions? There is no simple, dogmatic answer to these questions. Certainly an industry must make profits—get a larger return than it pays out in expenses—or it cannot long continue to serve either the community or the stockholders. Doubtless many business firms have not formulated well-defined purposes; and different elements in a business, such as investors, active managers, skilled workers, and unskilled workers, will not agree as to goals.

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[1] Jones, E. D., *The Administration of Industrial Enterprises*, p. 9.

The aim of a highly speculative business will be very different from that of an old business which has regularized its method of operation. The latter will stress economical operating methods and service to its customers; the former will give little consideration to these items. The long-run point of view in a business which is fairly well regularized is quite favorable to the interests of consumers and of workers. To succeed, such a business must cultivate the goodwill of both customers and employees. From the long-run point of view it pays an industry to lay aside the let-the-buyer-beware attitude; it is not good business to allow workers to become suspicious of the management.

In basic industries the typical dividend return is diminishing as the risk decreases. Except in new and experimental industries, the tendency is toward a standardized return. The speculative element is becoming less and less prominent. Great fluctuations in business and an abundance of speculative opportunities have caused an indifferent attitude toward inefficient and careless management. "The days of profit margins sufficiently wide to absorb the mistakes of faulty management are rapidly drawing to a close."[1] With a standardized return, "the inhibition of a corporate bureaucracy" may disappear, and we may get the creative impulse into working order. On the other hand, regular and reasonable profits (dividends) for stockholders—in case of actual investment—should be considered a charge upon the business and a factor in price-making.

The workers in an industry are looking eagerly for as large a return as is possible with a reasonable amount of endeavor on their part and under fairly good working conditions, but they are also much interested in a steady job and in opportunity for advancement. And a large percentage of workers wish to do a worth-while job in an efficient manner. If the interest of the worker is not enlisted, he is absent in mind. Too many plants suffer high "absentia" and "dissatisfaction" costs which do not appear in their cost accounts. With expensive machinery and high overhead costs, the executive cannot afford to hire inefficient workers at low wages. To be successful, he must pay sufficient wages and maintain such working conditions as will get interested endeavor from skilled workers. The customers or the general public wish adequate supplies of goods, of good quality, offered at reasonably low prices. This large, but not well-defined, group is also interested in the regular and efficient functioning of business enterprises.

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[1] Andersen, A., *Management and Administration*, February, 1926.

Government in Industry. The amount of governmental interference with industrial operations, as well as the danger of strikes, sabotage, and restriction of output by workers, depends in a very large measure upon the leaders in business. There will be little demand for government in business after business leaders accept the professional point of view. Less government in business cannot be obtained in these days of large-scale industry and mutual interdependence by the mere expression of a pious wish or by passionate outbursts against would-be reformers. It can be obtained as the result of the employment of better and more scientific business methods, by the development of associated effort actuated by a persistent attitude of regard for public or social welfare, and by careful and intelligent training in the field of business.

America has outgrown the small-scale individual scheme of enterprise. Associated effort is now essential—of labor, of farmers, of professional men, of merchants, of manufacturers, of bankers. Either these associations must take on a professional ethics, look beyond purely material gain to actual service to the community, or we shall witness repeated and determined efforts looking toward bureaucratic control. The railways are now paying for their unsavory past in excessive regulation, and organized labor is also paying for some of its unwise activities in injunction excesses.

The alternatives seem to be: governmental bureaucracy and red tape or the development of healthy group ethics. Legislative and bureaucratic action is clumsy, but we shall have it in increasing amounts unless voluntary associations clean house and adopt the professional point of view. In the words of President Hoover, "when legislation penetrates the business world it is because there is abuse somewhere." If business organizations bend their efforts toward eliminating waste, reducing friction in industrial relations, obtaining serviceable output produced under decent working conditions for a reasonable profit, then, and only then, may they demand hands off industry and get the desired results. If they do not set their own homes in order, society is certainly going to attempt to perform the task.[1]

What does the professional point of view signify in the case of the business man? The physician is an excellent example of the professional man. The surgeon who advises that an operation is unnecessary—although the patient would without question accept a verdict favorable to an expensive operation—has allowed his professional point of view and ethics to take precedence over the purely traditional business attitude. On the other hand, at the present time few business men would advise would-be customers not to buy their product until a future date or to take instead an article produced by another firm because by so doing the customer's peculiar needs would be better satisfied. Salesmanship—particularly, high-pressure salesmanship—means, too often, sell the article, persuade the customer that he needs it, be sure to get his signature on the dotted line. The automobiles sold on partial payments to many who ought to be dissuaded rather than persuaded are examples.

The professional point of view in the case of business men will indicate more emphasis upon the needs and welfare of the buyer of the product and of the worker in shop, mine, or store. When the management of a business takes the professional point of view, it will not cater solely to the interests of the investor. The management will consider itself to be the representative of the buyer and of the worker in the service of the company, as well as of those who own stock. The manager of a business will aim to produce a serviceable product at reasonable prices, employing well-paid workers working in attractive and healthful workshops. The words *reasonable* and *well-paid* are ambiguous and subject to varying definitions, but it is not impossible to attain a fair amount of agreement. Persons inclined toward pessimism will at once remark that the business man cannot take the point of view of the professional man. Business is business; it is not a profession and never can be. One answer is that the business man must be prepared to take a professional attitude or suffer very great interference on the part of governmental commissions and bureaus, or experience an increasing amount of governmental ownership and operation.

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[1] For further discussion, see Chapters on Transportation and on Public Utilities.

One of the most significant movements in the world of business is the rapid development of schools of business administration in connection with our colleges and universities. It is true that many of these departments for business training do not as yet foster the professional spirit. It is quite true that many are not doing much but developing high-pressure salesmen and shrewd business men of the old-fashioned type who care little for the public or for the workers. But the future looks brighter. These schools presently will begin—are in fact beginning—to train a high and new type of business men with a social outlook, men who are able to see that the public and the worker cannot longer be safely disregarded, men who see the importance of industrial peace and harmony and the significance of science in industry.

The politician and the engineer, or the trained business man, are very different. One is a master of speech and of emotional appeal; the other is a master of expert knowledge and of practical application. The engineer, rather than the politician, should control industry. Again, the engineer, rather than the speculator, is demanded in business. Too many of our technical difficulties have come because our best brains were interested in speculation, because stock-market manipulation rather than technical principles has determined the course of business procedure. A marvelous advance in industry will come when labor, management, and investors actually coöperate, actually function harmoniously, actually work together as a team. Then there will be little need of governmental interference in business.

QUESTIONS

1. Why do many workers "watch the clock"?
2. Have you come into touch with new types of business men?
3. What is the attitude of engineers toward restriction of output?
4. What is their attitude toward waste and inefficiency?
5. What is the purpose of the industry with which you are most familiar?
6. Give illustrations of the professional point of view in business.

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CHAPTER VII

THE UTILIZATION OF COMMODITIES

Production and Consumption. The purpose of production is to fashion commodities in the form wanted by the ultimate consumers, by everybody in the community, transport the commodities to the place where wanted, and furnish them at the time such articles are desired. Production is essentially a means to an end, and this end is the satisfaction of human desires. The purchasing decisions made by individuals for family use and by representatives of establishments utilizing consumption goods determine the direction of production. Men and women literally decide in stores and market places what producing establishments shall fashion, transport, and warehouse. Our "dollar votes" determine whether cotton or silk goods shall be produced, whether suspenders or belts shall be fabricated, whether this kind of food or that kind shall be placed on the market, and so on through a long and ever-lengthening list of commodities. The increasing income in the hands of the masses of the people in this country has led to a relatively slight increase in the demand for staple articles of food and clothing, and to a relatively great increase in the demand for articles of luxury or semi-luxury ranging from automobiles and radios to the movies and chewing gum. Mass production literally depends upon the purchasing power of the masses.

Rational utilization of commodities and services is clearly as important as are efficient and scientific methods of production. It has been indicated that the conditions under which production must be carried on are in no small measure determined by the purchasing demand, and in turn this demand is the result of our wants. The wise choice of commodities or the correct expenditure of income affects (1) the direction of productive activities, and (2) the health and effectiveness of those who consume.

In production, nearly all workers are specialists, but in the field of utilization of the results of productive effort, our wants and our purchases are becoming more and more varied. The work experience of men and women has been narrowed; but as consumers their opportunities to obtain a variety of commodities have greatly increased. Production has also tended to become large-scale, but the typical purchase of goods continues to be small in quantity. More pride is exhibited in efficient production than in rational and scientific utilization of commodities. The manager of a business and the skilled worker are usually proud of good work, but few indeed are those who manifest such a feeling in regard to the wise and healthful use of goods. But, it should be recalled, the opportunity to make a wise selection of goods is comparatively recent. It is the result of increased productivity.

The Art of Purchasing. As consumers, we are blundering amateurs. The art of purchasing has been accurately termed a "backward art"; our purchasing methods are unscientific. Except in the case of purchases by large-scale businesses and governmental units, careful consideration and investigation are rarely made. The buying process for the average American family is carried out in a haphazard fashion. Little knowledge in regard to the relative importance of food stuffs in the diet of the family and also little accurate information as to the quality of the materials purchased are available. Usually no budget system has been planned. A business using such methods would be in constant danger of a receivership. Nevertheless, in the United States, comparatively little has been done to develop rational standards for family consumption.

The average purchaser is without adequate guidance (1) in regard to what he actually needs, and (2) as to the exact ingredients and quality of the articles under consideration. In fact, there are few standards by means of which a purchaser anxious to be guided toward rational consumption can ascertain what is and what is not rational utilization of commodities. Even if these practical matters were put on a systematic and scientific basis, the art of purchasing could not be made scientific until after more is known about the process of mold-ing new habits and customs and about developing new states of mind in the rank and file of buyers. We buy many articles because others are making similar purchases, in order to "keep up" with our associates and friends, because of our desire for display, or because a shrewd advertiser has played skillfully upon our fears, our emotions, or our desires for social prestige.

A large fraction—perhaps, three-fourths—of the total expenditures of the American family for household purposes is made by the housewife. All household purchases are, of necessity, small-scale. Day after day decisions must be made as to the expenditure of the limited family income for necessities and luxuries. The modern store with its up-to-date advertising constantly presents a "series of temptations to buy this, that, or the other thing." The housewife untrained in the art of purchasing and usually unschooled in household economics is brought face to face with the highly developed art of advertising and of high-pressure salesmanship. Inevitably, the housewife and other small-scale purchasers make serious mistakes. Those of us having small or moderate incomes need training in the practical art of buying; we need to learn how to resist the wiles of advertisers and salesmen, how to combat the strategy of the market.

The arrangement of the tempting array of foods in a cafeteria and the location of different departments in a store are carefully calculated to furnish the maximum temptation to the patron. The arrangement is designed to provide a potent appeal through the eye of the individual; it is a direct form of advertising. One writer suggests that "Epicurus would have been tempted to unwisdom" in the up-to-date cafeteria. The store is today a warehouse in which are displayed an interminable variety of articles artfully arranged so as to lead to the maximum amount of sales. The endless columns of skillful advertising and the psychologically directed plans of the salesman continually bombard the easily bewildered and inexpert purchaser.

Furthermore, our purchasing habits or the demands of consumers are in a large measure the resultant of a curious combination of individual idiosyncracies, tradition, community fads, and social pressure which causes us to conform to the usual standards of family, class, and nationality, and which makes us the easy victims of the skillful propaganda of advertisers anxious to sell more of their product. Demand is often influenced by a multitude of social and psychological forces almost wholly independent of prices. The consumer is subjected to a multitude of pushes and pulls. "Economics has too often oversimplified the consumer's psychology." According to Professor Edie, "the science of spending money becomes in the deepest sense an economic study of values and standards of the civilization of a certain day and age."

The art of purchasing can only be made scientific after we have exact knowledge of the qualities and type of goods needed, and after we learn how to mold habit and custom and how to develop new states of mind. It has been suggested, for example, that if the state of mind could be modified so that any considerable deviation from the normal in dress on the part of women would be considered as an effort to conceal physical unloveliness, emphasis upon fashion in the dress of women would disappear. The business man, through his advertising and high-pressure salesmanship, creates a state of mind favorable to the purchase of his products. There is unfortunately no group financially interested in protecting the unorganized consumers. Perhaps, it is an appropriate governmental function to aid in creating the state of mind which will reduce unwise and irrational purchases on the part of the rank and file of small purchasers—the consumers.

Waste. Progress is movement toward the "rational organization of human society." The history of progress is a story of diminishing waste in both production and consumption. Rational utilization of materials and forces must go hand in hand with efficient production. There are two varieties of efficiency which should be clearly distinguished: industrial, and welfare efficiency. The former relates to the production of goods and services with the least possible expenditure of time and energy. From the standpoint of welfare efficiency the additional question may be asked: Is the service worth doing even if performed in an efficient manner? Wasteful consumption signifies misdirected efforts in production. Certain sorts of products degrade not only the consumer but also the producer. Certain highly desirable products are produced under conditions which degrade the great mass of workers employed in such producing establishments. Individuals degenerate and die prematurely because their wants are improper; likewise nations have decayed because of the unwise wants of the people. In modern interlocking and complex civilization it is highly important that the consumption of individuals be not destructive or degenerative, and that our productive energies be directed toward doing worth-while kinds of work. From one point of view, progress means educating people to want things which are clearly good for them, and which do not involve degradation for the producers. In so far as it is feasible, men and women should be educated to demand: (1) things which are beneficial to consumers and to society; and (2) things which can be produced without great social waste, (*a*) of materials, and (*b*) of human beings engaged in productive effort. This would call for a careful analysis of wants and of the methods of changing human desires. It demands much further study of production processes, of economical marketing, and of efficient utilization of consumable goods. It is indeed a difficult educational project.

Many analyses of waste in the production and utilization of commodities have been made. The following, differentiating waste into four major classes, is perhaps as clear and complete as any.

1. *Waste of Fixed Assets.* Certain industries are over-developed. As a consequence, except in times of extraordinary demand, the industry does not run up to its maximum. Portions of its machinery and buildings are not utilized or are only partially utilized. Badly located plants are often closed down fully or partially. The soft coal industry is an example of over-organization or of uncoördinated growth. The investment of capital is too large to permit continuous operation. During the thirty years preceding 1921, according to a careful student of the industry, the men and equipment were idle on the average ninety-three days per year. There is no good reason for believing that any considerable improvement has taken place in the soft coal fields since that date. The Committee on the Elimina-

tion of Waste in Industry of the Federated American Engineering Societies estimated that the waste due to idle machinery and men in the metal trades industry amounted to nearly one billion dollars annually. Over-development is almost typical of American industries. Over-development means high overhead or constant expenses for which finally the consumer pays in higher prices and in reduced real income.

2. *Waste of Materials.* Much material is wasted within manufacturing plants as the result of carelessness, haste, and inefficient methods. The waste of materials and resources in coal and oil fields, in metal mines, in forestry, and in other sorts of extractive industry are enormous in sum total. The losses are due to imperfect technical methods and to the desire to make immediate profits at the expense of conserving natural resources. The Department of Agriculture several years ago estimated that over one-third of the timber resources in the United States was wasted by leaving part of the timber on the ground, by the failure to utilize by-products, and because of inefficiency in the mills. A large fraction of our oil resources has been wasted—much has been left in the ground, new wells have not been brought under control until much oil is lost, much wastage has taken place in storing, transporting, and refining the oil, and, finally, the methods of utilizing petroleum products have been inefficient and wasteful. Practically the same story may be told in regard to soft coal. Our soil fertility has been and is being wasted as the result of poor agricultural methods and of floods which denude the land and carry the elements of fertility away.

3. *Waste of Man-Power.* Enormous losses of man-power are due to a great variety of causes. Even in times of prosperity large numbers of men are unemployed. In times of depression it is estimated that the total of the involuntarily unemployed in the United States has risen as high as four to six million. In addition there may be mentioned the idle rich, the tramp, the bum, the criminal, and the gambler. These elements make up a vast, changing, and heterogeneous army of non-productive men and women who might be producers. Excessive labor turnover, the rapid drift of workers in and out of industrial establishments, wastes much man-power. Voluntary absentee-

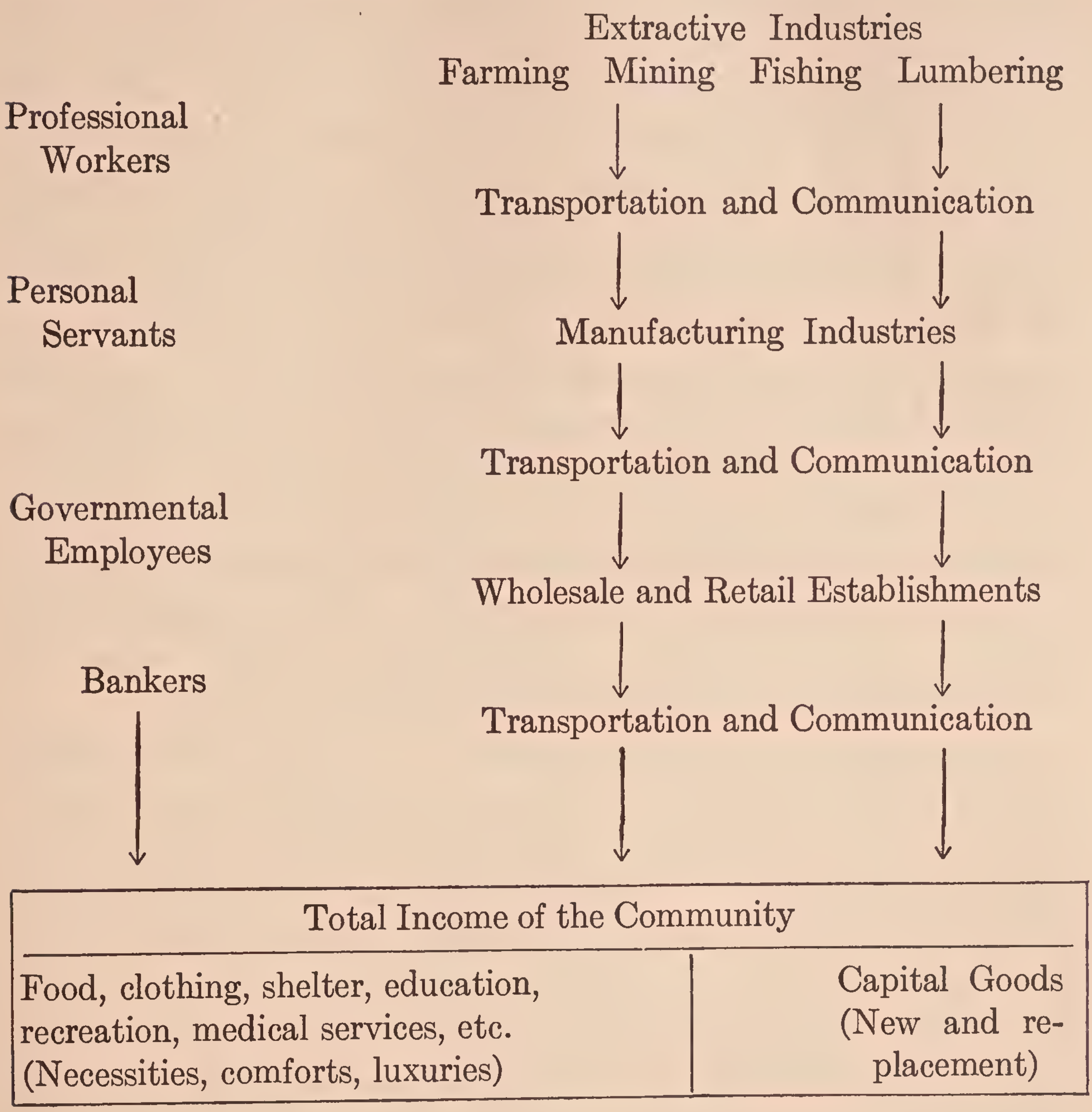
ism adds to this total. Strikes, lockouts, and especially the sabotage and slowing down due to bad human relations within industry, contribute to man-power waste. These hidden losses resulting from friction between management and men are far more important as a source of waste than the more evident and spectacular flare-ups in the form of strikes and lockouts.

Accidents, sickness, premature disability, occupational misfitting, and lack of interest in the job swell the dark stream of wasted man-power. Finally, the attention may be directed to the indirect wastes due to producing adulterated, useless, and harmful products—illth—, to those due to the use of antiquated machinery or methods, and to insanitary or badly lighted and ventilated work places. Stuart Chase estimated a few years ago that over one-half of our potential man-power is wasted.

4. *Waste in the Field of Distribution.* In marketing, waste arises because of excessive competitive advertising and salesmanship. Too many retail stores doubtless exist for the most efficient distribution. These stores warehouse unnecessarily large amounts of idle merchandise; and "idle merchandise accumulates a burden of interest, insurance, rent, taxes, depreciation, shrinkage, and obsolescence, in addition to tying up an unnecessary amount of capital and credit." Unnecessary and slow transportation is costly. According to an industrial engineer, Basset, it costs more to move a parcel from a New York dock to an uptown warehouse than to bring it from China to the dock. The jam of vehicles in the streets of New York is costly. Vehicles which do more waiting than working are perforce expensive and inefficient. Breakage, freezing, spoiling, general deterioration, excessive costs of delivery, and the like, are among the other important wastes in the marketing process.

The famous report on *Waste in Industry*, sponsored by the Federated American Engineering Societies, classified waste under four headings: *Low Production* caused by faulty management of materials, plant, equipment, and men; *Interrupted Production* caused by idle men, materials, plants, and equipment; *Restricted Production* intentionally caused by owners, management, or workers; *Lost Production* caused by ill health, physical defects, and industrial accidents.

WASTE AND REAL INCOME


Extractive Industries
Farming Mining Fishing Lumbering
Professional Workers
Transportation and Communication
Personal Servants
Manufacturing Industries
Transportation and Communication
Governmental Employees
Wholesale and Retail Establishments
Bankers
Transportation and Communication
Total Income of the Community
Food, clothing, shelter, education, recreation, medical services, etc. (Necessities, comforts, luxuries)
Capital Goods (New and replacement)

The chart above pictures the functions of the forty-odd millions of gainfully employed that constitute the working force of the United States, considered as a gigantic establishment with a raw material, a manufacturing, a sales, and a transportation department, and with a large number of professional workers, governmental employees, and other groups furnishing services. The income of the nation is the result of their combined efforts.

The chart above may be used to make clear the intricacy of the business mechanism which produces the great flow of goods and services that constitute the real income of the nation. It may be noted that savings in the form of new buildings, equipment, and other sorts of capital goods cause the immediate reduction of the flow of consumable goods and services. As a consequence, however, more equipment is available for use in industry with the possibility of increased future productivity and increased consumption of goods and services. The chart also shows how man-power and fixed assets may be wasted. Any case of low, interrupted, restricted, or lost production reduces the flow of goods and services to the community. A revolution or any significant change which interferes with the regular and smooth flow of consumable goods and services becomes a very serious menace in an interlocking civilization. It is much more serious in a highly developed country than it would be in a country like Russia which is industrially backward. Business in an interlocking civilization like ours is more of a coöperative than a competitive affair. If a reduction in purchasing occurs, this in turn checks productive activity. Today production is actually carried on chiefly in anticipation of wants backed by purchasing power. A mistake means financial loss.

Responsibility for Waste in Industry. The Federated American Engineering Societies in their famous investigation into *Waste in Industry* studied in some detail six industries—the building industry, the men's clothing industry, shoe manufacturing, printing, the metal trades, and textile manufacturing. While the chief aim of the investigation and report was to discover the causes of waste in industry and to direct the attention to plans for the reduction of such losses, an interesting attempt was made to assign responsibility for waste in the six industries investigated. The following table presents the findings.

INDUSTRY STUDIED	MANAGEMENT	LABOR	OUTSIDE CONTACTS
Men's Clothing Manufacturing	75%	16%	9%
Building Industry	65%	21%	14%
Printing	63%	28%	9%
Boot and Shoe Manufacturing	73%	11%	16%
Metal Trades	81%	9%	10%
Textile Manufacturing	50%	10%	40%

It is interesting and instructive to note that this study made by engineers places the responsibility for wasteful practices in manufacture largely upon the shoulders of management, ranging from 50 per cent in the textiles to 81 per cent in the metal trades. Labor's responsibility, on the other hand, is rated as ranging from 9 per cent to 25 per cent. The report rightly insists that "it must be recognized that if management is to meet this responsibility fully it must have the coöperation of labor."[1] The fickle changes in demand on the part of the buying public are the cause of a considerable fraction of the waste charged against the public. The Department of Commerce, in the years which have intervened since this study was made, has pushed with encouraging results a campaign for simplification—that is, for a reduction in the number of varieties and styles produced of a given product. Possibly the government should be encouraged to assume a more positive rôle. Our legislative bodies pass laws to prevent adulteration, to reduce waste through insanitary conditions and unsafe conditions in factories. Is it not as important that society take steps to prevent inefficient management in an important business enterprise?

The Cost of Living. By the cost of living is ordinarily meant the monetary cost of procuring the goods and services which are purchased for personal or family utilization. Practically every family is much interested in price fluctuations and in changes in the cost of living. The best and most complete statistics in regard to changes in the cost of living in this country are those issued by the Federal Bureau of Labor Statistics. In 1918 to 1919, the Bureau made a careful study of 12,096 families of workingmen in 92 towns in 42 states. The yearly income of these families ranged in nearly all cases from $900 to $2,500 per year. On the average these families spent 38.2 per cent of their total yearly expenditures for food; 5.2 per cent for light and fuel; 16.6 per cent for clothing; 13.0 per cent for rent; 5.1 per cent for furniture and house furnishing; and 21.3 per cent for miscellaneous items, including doctor's and dentist's fees, newspapers, car fare, movies, laundry, tobacco, toilet articles, etc. The families with higher incomes spent a smaller percentage on food and a larger percentage on miscellaneous items than did those receiving a lower yearly income.

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[1] *Waste in Industry*, p. 9.

New studies of family budgets are needed. Radical modifications in the diet and in housing requirements of the American people have taken place since 1918–1919, and certain types of expenditures that were unusual or unknown at the earlier date are now customary.

This average budget has been used by the Bureau as a basis for determining changes in the cost of living. Statistics are gathered regularly as to the retail prices of forty-three different food items in half a hundred cities and towns. The changes in the price of each article of food are recorded. Care is exercised to make certain that articles of similar grade and purity are priced in the different cities and in different years. Each article is given a weighting or importance equal to that found in the actual average budget of the 12,096 families. A similar calculation is made for clothing, shelter, etc. In this way the relative changes in the price level of each of the six groups are obtained. The six classes in the budget are then weighted in accordance with their respective importance in the budget as determined in the Bureau's original investigation. Foods are given a weight of 38.2, and miscellaneous items, 21.3. By this use of a series of weighted averages, the relative cost of living is obtained for different years. The year 1913 is usually taken as the basis of comparison and is given the index number of 100. If the index number for June, 1926, is 174.8, it indicates that the cost of living in June, 1926, had risen 74.8 per cent above that of the year 1913; or, on the basis of this calculation, $1.748 was required in June, 1926, to purchase as much of food, clothing, shelter, etc., in the workingman's budget as $1.00 would have purchased in 1913. Index numbers, used by statisticians, do not record actual costs; they represent relative costs.

Cost of Living in the United States

(According to the U. S. Bureau of Labor Statistics)

Year 1913	100	June 1927	173.4
June 1920	216.5	June 1928	170.0
June 1924	169.1	June 1929	170.2
June 1926	174.8	June 1930	166.6

June, 1920, represented the peak of prices in recent decades. It required over two dollars to buy as much as one dollar would obtain in 1913, of the composite budget of the workingman. By June, 1929, the price level and the cost of living had dropped considerably below the peak, but the cost of living was 70 per cent above the pre-War year of 1913. Furthermore, a dollar in 1913 would purchase less than the 1896 dollar; or the cost of living was lower in 1896 than in 1913. Barring a great war or some unexpected upheaval, there is reason to expect prices and the cost of living to tend slowly and irregularly downward rather than upward during the next decade.

A Decent Standard of Living. Standards of living vary from group to group and from country to country. The standard of living of the skilled worker differs from that of the common laborer. The professional man and the farmer do not maintain the same standards of living. The wage workers often contend that wages should be high enough to enable a family to maintain "a decent standard of living." However, there is marked disagreement as to what exactly constitutes the budget of a family living on such a standard. In 1919, the United States Bureau of Labor Statistics presented a tentative budget. The Bureau held that this budget represented the items necessary to maintain a family of five in Washington, D. C., at a level of health and decency. The budget called for an expenditure of $2,262.47 per year. This amount, it was asserted, would provide sufficient nourishing food, a house in a low-rent neighborhood, the upkeep of the household equipment, and provide warm and adequate clothing. Allowance was made for doctors and dentists, recreation, union dues, church attendance, and incidentals. In 1929, the Associated Charities of a Nebraska city announced a budget for a family of five. This required approximately only $1,350 per year. No allowance was made for recreation, dentistry, church or charity, reading, or vacations. Evidently such a budget represents an absolute minimum cost of living, or less.

Welfare and Income. Economic progress involves improvement in organization on the side of the utilization of commodities as well as in production and transportation. Human welfare is not assured by the receipt of a large income. Welfare demands the intelligent direction and organization of material and economic forces. "It is only by becoming wise choosers, wise spenders, and wise users that the vast potentialities that lie in the increased productiveness of economic machinery can be transformed into the realities of human progress."[1] What is the type of life and of living which makes for national well-being? What is the "good American life"? The difficulties involved in answering these questions may be made clear by asking a series of questions.

Does the good American life mean a Ford and a high-school education? Does it require a Dodge and a college education? Or, must it be accompanied by a Cadillac and leisure? Is it the simple life—"three acres and a cow"—or are steam heat, electric lights, running water, and a chauffeur essential? Is the good American life possible without a large income and a high-powered car? Is the frugal individual who practices thrift living the good American life or is it lived only by the generous spender who cares little for the morrow?

Is the good life to be found in working regularly for a fairly adequate wage? Is it one in which a person idles, dreams, meditates, hunts, plays, and works occasionally? Is the good life lived by a migratory worker who rides the bumper of a freight train or drives a second-hand automobile between jobs? Daniel Boone was a migrant. Did he live a good life? Or, is it lived by the high-powered executive who rides in the Pullman or the airplane and lives in expensive and fashionable hotels? Or, again, is it lived by the routine worker who owns a small cottage at the edge of town and who never wanders far from his fireside and workshop? Do those living the good American life begin and stop work when they "feel like it" or are punctuality and regularity essential?

Is such a life connected with a short working day and wasteful expenditures? Does it involve a college course, membership in a fraternal organization, a minimum of hard study, golf, bridge, membership in a club, frequent vacations? Is it connected with oft-repeated expenditures for tobacco, soft drinks, cosmetics, shampoos, manicuring, athletics, jewelry, autos, and radios? Can our comfortable classes be too comfortable for a good life? Do Americans in 1930 expect too much to be done for them? Are we becoming too dependent upon personal service, upon trustees and trust companies, upon solicitors and mechanics? Did the self-reliant pioneer live the good life? Is life today too soft?

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[1] Tugwell, R. G., and others, *American Economic Life*, p. 449.

Should the man who wishes to live the good American life follow the crowd or should he leave the beaten path? Does that life require one to follow in the traditional ways of the fathers of the nation or does it mean a course lighted by the lamp of the question mark and of rational investigation? Is the good life lived by the heretic, the radical, the progressive, or by the conservative and the conformist? Does it or does it not demand constant adaptation to new and changing conditions? Can the good American life be lived in a welter of peoples, classes, beliefs, and customs or, before any one can live such a life, must our diverse groups be assimilated and reduced to a common denominator? Is the good American a talker or a doer? Is he preacher, business man, farmer, idler, engineer, politician, dreamer, or production expert?

Are plain living and high thinking the goals of the man living the good American life? If so, how large a percentage of Americans are actually trying to reach these goals? Do high living and high thinking go hand in hand? Is the good American life one of contentment or of striving? Is contentment a "mild form of decay" or is it the ideal goal of life? Are "successful" men and women those who live the good American life? What determines whether a man has or has not achieved success?

Finally, if it were possible to decide definitely what constitutes the good American life, who would be the leaders in inducing the American people to live after that fashion? What arts of persuasion may be successfully used? Can people be induced to live well by teaching, by precepts, by preaching, or by example? Who knows? Science as yet seems to vouchsafe no clear and definite answers to these questions.

QUESTIONS

1. "We spend more in trying to live like our neighbors than in trying to live comfortably." Do you agree? Why? Give illustrations.
2. How would you measure welfare?
3. Present a plan for the reduction of waste in production.
4. Present a plan for the reduction of waste in the consumption of commodities.

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CHAPTER VIII

VALUE AND PRICE

Exchange Value and Price. The business man is interested only in producing material commodities or services which may be sold at a price or which may be exchanged for other commodities or services. Such commodities and services are called economic goods or goods which possess value in exchange. All economic goods possess the quality of satisfying the wants or desires, good, bad, or indifferent, of human beings; such goods are said to possess utility. In addition, economic goods also exist in quantities insufficient to satisfy all demands or desire for the good; in other words, economic goods are scarce. An economic good is, therefore, characterized by utility and scarcity; it is valuable. The value in exchange, or the value, of a good is the importance of that good in terms of some other good; value is always a ratio. One bushel of wheat exchanges for two of oats. The exchange value of wheat in terms of oats is 2:1. However, goods and services are rarely exchanged or bartered directly for other goods and services. They are indirectly compared in terms of money. Wheat and oats are compared in terms of money rather than in terms of each other. Each is given a price. In the market, all commodities are given prices. Price is merely one form of exchange value. The price of an article is its exchange value in terms of the monetary unit. In this country, price is the exchange value of an article in terms of the weight of gold in the standard dollar. When the exchange value of wheat in terms of oats is 2:1, the price of wheat may be $2.00 per bushel and that of oats, $1.00 or the prices may be $1.00 and $0.50.

The word *value* or the phrase *value in use* is often used to connote the importance placed by an individual upon a particular commodity or service, or what a group or an individual believes should be the price. It appears that this concept of value in use differs little from that attaching to utility. To assign an importance or value to goods which varies from that which the market assigns, takes us out of the field of economics into that of ethics. In economics we take human beings as they are with their peculiar wishes and frailties. This does not mean that economists are not interested in human welfare and social and individual betterment, but it does signify that they analyze today's conditions on the basis of actual, imperfect men and women. The economist's interest is in the problems of market price.

Normal Price. It is as a rule assumed that under competitive conditions prices tend to equal the expenses of production. Normal price is said to equal the expenses of production. Monopoly price is considered to be an exception to the rule. Under non-monopolistic conditions, it is asserted, market price may rise above or fall below the normal price level but the constant tendency is for the two to coincide. As a matter of fact, competition does not work so smoothly as economic theorists assume. Interferences appear on every hand—agreements, combination, new and suddenly modified demand, favoritism, monopoly, governmental regulation, etc. It may be desirable to consider what would happen if there were free competition for the same reason that the physicist studies the rate at which bodies would fall in a vacuum. Falling bodies are never in a vacuum and business is never under conditions of absolutely free competition. We should not forget that free competition is as difficult to discover as the sea level of an ocean of restless waves and constantly moving tides; it is a figment of the imagination.

Monopoly, partial or complete, means an interference with the operation of competition. Changing industrial conditions also interfere with the competitive process and give rise to extraordinary profits. All products which cannot be reproduced are not subject to the theoretical rule in regard to normal price. Their prices depend upon the supply in existence and upon the intensity of effective demand for them as, for example, in case of the paintings of a great master of the Middle Ages or as in the case of land. Products which are produced in a discontinuous manner sell at prices which are not equal to the expense of production. The price of wheat in the spring does not usually bear a close relation to its expense of production. In like manner, an article produced months before it is sold will frequently be sold at prices above or below the expenses of production. If the price is equal to any expense of production, it is the expense now of producing a similar article. Highly perishable articles must frequently be sold at a price far below expense of production.

In fact only in an unusual or hypothetical case does market price bear any direct relation to the expense of production. Theoretically, goods would normally sell at their expense of production only under the following extraordinary circumstances—if competition were free, if the product were freely and continuously producible, if the demand for it fluctuated but little and the methods of production were well standardized, and if it were sold to the ultimate consumer immediately after the process of production was finished. In actual practice, unless attempts are made to fix or regulate prices, the price of an article or service tends to equal "what the traffic will bear" with profit to the producer. It is what sellers can get and consumers will pay. A business which expects to continue year after year and which takes the long-run point of view will often sell below the price which will give immediate maximum returns with a view to a greater volume of business later. Market price is the result of a bargain often made under circumstances unfavorable to either buyer or seller.

Supply and Demand. In the business world demand for a commodity is desire backed by purchasing power; it is the quantity which will be purchased at a given price. Mere desire does not necessarily constitute demand. A man with a small income may desire an expensive automobile, but his desire will not be translated into effective demand because it is unsupported by adequate purchasing power. Demand varies also with the price of the commodity. The demand for a particular type of fountain pen will be different at a sale price of $5.00 than at one of $7.00. In like manner, supply is the amount of a commodity which will be offered for sale at a given price. The supply which will actually be placed on the market, however, is not independent of the amount of reserve stocks. Reserve stocks consist of (1) partially finished goods, (2) goods held in warehouses and other storage places in anticipation of higher prices, and (3) potential supply or a supply which might be made if the market price warranted. Supply, like demand, is an amount which will be placed on the market at a given price. A market price is the price at which the amount placed on the market equals the amount purchased. In short, at a given market price, demand and supply are equal.

Wide variations exist in the demand for commodities. Men with large incomes will buy certain necessaries whether the market price be high or low. Others must exercise great care in making a small income suffice for the necessities of life. Demand for a given article varies from individual to individual and from place to place. Lowering the price ordinarily allows the sellers to reach new groups of purchasers. The desire of an individual for any given article changes with fashion, advertising, and the presence or absence of suitable substitutes. It also diminishes ordinarily as more and more units of the commodity become available for utilization. In technical terminology this tendency is called the "law of diminishing utility." The desire of a person for a commodity may easily be satiated, but the demand of the normal person for all kinds of goods is never satiated. New wants and desires arise as older ones are satisfied.

Demand for a commodity is said to be elastic when the total amount demanded—purchased—increases rapidly as the price lowers or decreases rapidly as the price is raised. Inelastic demand is found when the amount of a commodity demanded does not vary greatly as the price rises or falls. No commodity is absolutely elastic or inelastic. In general, the demand for a necessity—unless there is a good substitute for it—is said to be inelastic. The demand for comforts and luxuries is relatively elastic. Inelasticity of demand tends to result in extreme fluctuations in prices if the supply offered on the market changes.

The total supply of an article placed on the market is ordinarily made up of parts produced at different costs. One establishment furnishing a portion of the supply is able to keep costs of production low; others produce at higher costs. Some may make large profits; other concerns may be on the verge of bankruptcy. If the price of a commodity placed on the market by several competing establishments rises, these establishments may increase their output or new producers may enter the field. If an old producer increases his output, it may be under conditions of increasing, decreasing, or stationary costs.

A condition of increasing cost of production is met with when it becomes more difficult and expensive to obtain raw materials, when less efficient workers must be used, when land must be utilized too intensively for the best results. Farming and the retail store business are good examples of industries which soon reach a condition of increasing costs with increasing output per business unit. Usually, competition between relatively small firms is not easy to stifle; there is little incentive toward large-scale industry and toward monopoly. On the other hand, railway and electric power plants are businesses of decreasing expenses of production—until very large business units are assembled. The manager of an industry which has not as yet reached the point of minimum cost per unit of output is under temptation to increase his output. If several competing companies are in the same condition, the tendency, in the absence of regulation, is to increase output, to enter an era of fierce or cut-throat competition. Competition between such businesses does not work smoothly. Finally, combination and monopoly result. Businesses of high fixed expenses or overhead costs are of decreasing costs until the size of the business unit becomes large. A large-scale business may actually increase profits by reducing prices, selling more, and producing more at lowered costs. The difference between a business of increasing costs and one of decreasing costs is a matter of degree. Certain businesses reach the point of maximum efficiency—lowest cost of production—while small-scale; others only after a large output is reached. A business of fairly constant costs is ordinarily one in which hand labor is an important factor. Such industries are relatively of little importance.

Competition. Competition in the world of business has signified a condition in which several sellers offer goods in a market without agreement or manipulation on their part, and in which several buyers are eager to purchase the commodity offered. Free competition has been praised since the days of Adam Smith as "the life of trade." It has been urged that competition will lead to the business survival of the best firm or firms. The concern, it is asserted, producing the best quality of goods at the lowest costs will live and grow, and the inefficient and dishonest firms will be forced to the wall. In this manner society and the efficient producers will benefit. It is assumed that consumers will be able to distinguish the quality of goods and will always take only the type of article which offers "the most for the money." In actual practice, in these days of skillful advertising and ease of adulteration, it seems clear that the advantages of free competition may easily be exaggerated. Business men are prone to decide that competition means for them "a dearth of profits." As a consequence, competing business units often make agreements and form pools, combinations, trusts, holding corporations, institutes, or some other form of organization in order to protect themselves from the play of free competition. However, even the most pronounced advocates of the virtues of free competition presuppose a certain amount of legal regulation which is aimed to prevent undesirable forms of rivalry, which will eliminate "jungle competition." The existence of private property rights and the enforcement of valid contracts are taken for granted.

Cultivation is the restraint of competition in the vegetable world by agriculturists, but the competitive principle is retained on a different and higher level. Domestication of animals means the removal of certain kinds of competition, but again strenuous competition still persists. The wild grape is the product of unregulated competition; the Concord of regulated competition. Regulation eliminated the unfit and the enemies. Custom spells restraint of competition in industry. When prices were fixed by custom, price-cutting could not occur, but competition as to quality might be active. The rules of the game destroy certain forms of rivalry, but competition and rivalry actively continue within certain well-defined limits. The prize fighter may not strike below the belt, but no one doubts that active rivalry and competition, within prescribed limits, are found in the ring when two pugilists meet for an encounter under the usual rules. The football game presents a case of regulated competition.

Monopoly and special privileges place limits to the play of competitive forces. Inheritance and private ownership of land and of the instruments of production also fix limits. The vital problem relates to the "just" and "fair" limits to competition. What are the correct rules of the competitive game? This is comparatively easy to answer in regard to wheat growing or stock breeding, but it becomes a very difficult matter if application is made to human society. Different classes and conditions of people return radically different answers. Competition—rivalry—is everywhere. Socialism cannot, does not aim, to do away with competition. Leaders and followers there must ever be. Some must play one part and others very different rôles. Not everyone can occupy the front seat. Both competition and coöperation are essential to good teamwork. While picking the team, competition is primary; later, coöperation is. Legal enactments may change the form of competition and set new bounds within which it may operate. Monopoly does away with "jungle competition," but substitutes restricted or "unfair" competition. Bitterness and hatred normally arise in the case of unfair competition, but not in the case of regulated competition. We do not hate the opponent who wins fairly in a game or in what is usually called "fair" business competition.

In recent years, competition has developed several new and interesting phases, such as the one-price system, inter-commodity, intra-industry, inter-industry, inter-territorial, and international-industrial competition. The newer forms of competition are prone to utilize high-pressure salesmanship, national advertising, skillful appeals to the fears and hopes of great numbers of people, and much propaganda based upon a knowledge of human psychology. The basic conditions under which competition takes place have so changed since the days of Adam Smith, of the American pioneer, and of small-scale and localized industry that the traditional forms of praise and of distrust no longer apply. We are living in a business world in which the typical forms of competition are very different from the ones we talk most about.

The one-price system now used in nearly all retail stores has greatly changed the mechanism of bargaining. In the retail business individual bargaining through bluff and higgling is going out of fashion. Each and every customer is given the opportunity to buy a certain article at a fixed price. The customer may take it at that price or not as he sees fit, but the price is not changed to make an additional sale. When the price is changed, it is modified for all comers. Frequently, in connection with the one-price system, the article sold is in the original package with the name of the maker placed in a conspicuous place on the package. The original package definitely fixes responsibility for quality and quantity. Many retailers also take back the article and give the purchaser his money if the goods are not satisfactory or as represented. These new methods of retail marketing modify greatly competitive conditions and improve business ethics. The old legal rule of "Let the buyer beware" helped to make cheating safe. The pedlar, the fair merchant, or the ship captain of the Middle Ages did not do a continuous or recurrent business to the extent that the merchant of today does. The merchant of early times has aptly been called "a peripatetic rogue who reduced prevarication to a system." The one-price, original package, money-back plan of marketing makes for business honesty.

Inter-commodity competition is found in the rivalry of enterprises producing commodities which may be used for the same purpose. Lumber dealers compete with the dealers in brick and stone. One type of roofing competes with another. In the traditional sort of competition, lumber dealers competed with lumber dealers, and small storekeepers with small storekeepers. In inter-commodity competition, a group of producers or sellers of the commodity unite in an association or an "institute" with a view to keeping or improving the market for the product they are interested in. Those who, under the old forms of competition, would vigorously fight one another now coöperate in a campaign against a powerful business foe threatening the entire industry.

In intra-industrial competition retailers may organize wholesale houses and build factories, or wholesalers and manufacturers may go into the retail business. This is vertical combination. Sales campaigns by an associated group of producers and distributors to get a larger share of business constitute inter-industrial competition. The various "week" campaigns, as "Eat-more-raisins Week," and the organized attempts to make Americans "shoe conscious," "silk conscious," and "conscious" of many other products, are examples of this new type of planned competition. The struggle of one town or section against another in the matter of getting new industries, conventions, etc., is a case of inter-territorial competition. Florida versus California is an example.

The business fight between large oil corporations in different countries is an example of international-industrial competition. It was proposed in 1928 to pass a federal law facilitating the dumping of agricultural products abroad so as to prevent flooding the home market and reducing prices to a point which threatened to take away the farmer's opportunity to make profits. The actual carrying out of such a proposal would doubtless result in international-industrial competition.

Monopoly. When one producer or seller, or a group acting unitedly, can control all, or a considerable fraction, of the supply which is brought to the market, he can within certain limits determine the market price. The business is no longer competitive; it is a case of monopoly. There may also be a buyer's monopoly when sales can only be made by several would-be sellers to one buyer or to a group acting concertedly. The essential feature of monopoly is the ability to control the supply or the demand, and, consequently, to determine prices. A successful monopoly, from the point of view of the monopolist, is one in which the supply marketed and the prices charged will yield a larger return than under competitive conditions. The shrewd monopolist will attempt so to fix the price of the monopolized article as to give the greatest net profits—that is, profits per piece multiplied by the number sold. If prices are fixed too high, the number of sales will be greatly reduced and profits, while large on each unit, may be small in sum total. If prices are placed too low, profits per unit may practically disappear. The monopolist controlling the output of a necessity for which the demand is quite inelastic and for which no cheap substitutes are available, possesses the power to take a heavy toll from the consumers of the monopolized commodity. A commodity for which the demand is quite elastic does not readily lend itself to monopolistic profit-making.

Many classifications of monopolies have been presented. For our purpose, it will suffice to recognize two classes: social and natural.[1] Social monopolies may be divided into legal, such as patents and copyrights, and special privilege, such as those resulting from railway rebates or from public favoritism in the granting of contracts and the like. Natural monopolies may also be divided into two subclasses: (1) those arising from the control of a limited supply of raw material, as in the case of the anthracite coal mines of Pennsylvania, and (2) those arising from the peculiarities of organization. Businesses of high fixed expenses, such as railways and public utilities, are monopolies of organization.

Unrestricted monopoly power in the hands of one company or of a small group of enterprisers gives power to levy toll upon the consumer. Fortunately, one or more of three important restrictions upon the power of monopolists are as a rule brought into play in such a manner as greatly to reduce monopolistic power. Monopoly may be interfered with (1) by the possibility of a satisfactory substitute being placed on the market if the price of the monopolized article is not kept below the point of maximum returns, (2) by the threat of potential competition if excessive profits are made, and (3) by the passage of regulatory legislation determining rates, as in the case of railways and public utilities. Even in the absence of these salutary restrictions monopoly does not necessarily mean extraordinary high prices; but it must not be forgotten that the essence of monopolistic power is the ability to restrict the amount placed on the market.

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[1] The classification adopted by Dr. Richard T. Ely.

QUESTIONS

1. What is the difference between exchange value and price?
2. Differentiate between normal and market price.
3. Give examples of elastic demand. Of inelastic demand.
4. Why does competition persist in the retail business of selling groceries?
5. Give several examples of older forms of competition.
6. Give examples of new types of competition.
7. Does the one-price system eliminate competition?
8. Show how the monopolist attempts to fix the price of his product.
9. What is meant by potential competition?

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CHAPTER IX

MARKETING

The Job of the Middleman. The marketing of products includes all the processes involved in getting commodities from the business agents giving form utility—farmers, manufacturers, and other primary producers—into the hands of consumers. The job of the middleman is that of giving time and place utility to commodities; it is broadly speaking that of marketing. In primitive and pioneer days the producers and consumers were usually in the same group. Except in the case of a few commodities, marketing and markets were unknown. Goods were not bought, sold, or priced. The middleman was not yet called into existence. The first middlemen were itinerant traders or pedlars who carried wares from place to place, receiving in exchange other goods. The intinerant trader or pedlar did much to enlarge the market area and to make possible the early steps in division of labor and specialization of duties.

The middleman is a specialist; he is the connecting link between primary producers and ultimate consumers. In modern times the middleman performs a service which must be performed by some one. If this function is not taken over by specialized middlemen, it must be performed by the producer or by the consumer or divided between the two. The growth of cities, localization of industries, the development of specialization and of the subdivision of labor, all tend to lengthen the distance in time and space between the producers of goods and the consumers. Obviously some one must act as the connecting link between the two. Manufacturers and farmers specialize in producing goods; merchants—middlemen—specialize in finding a market for these goods. Retail and wholesale merchants and the transporters and storers of goods are middlemen. Is not the task of getting goods to the place where they are needed and when they are desired as important and commendable as that of manufacturing or mining?

Where "time is money" the specialized middleman flourishes. "Generally speaking," writes Professor Carver, "it will be observed in any community where the average person considers his time valuable, there are a great many middlemen intervening between producers and consumers and very little direct marketing. . . . The system of direct marketing saves money, it is true, but it wastes time; the system of indirect marketing saves time but, in a sense, wastes money." The city dweller who has work to do cannot afford to market directly; he cannot spare the time to search out the farmer and market gardener. He depends upon those who bring the products to him.

Like other business men, the merchant of today is in business for profit. He may, when the opportunity is offered, demand and obtain a monopoly price for his services, but there is nothing unique about that practice. The profits of middlemen may be too large and the processes of marketing excessively wasteful, but the remedy is obviously not to be found in an attempt to eliminate middlemen or their functions. Only a return to a primitive economy with little or no marketing would enable us to get along without middlemen. A practical program calls for a reduction of unnecessary costs and wastes of marketing.

In contrast to primitive, feudal, and pioneer days, demand is today a complex matter. The marketing process has become intricate. Many grades, kinds, and styles are necessary to cater to the peculiar wants of different classes of people living under different physical and social environments. The producers and sellers of goods must analyze the nature of demand. They can, it is true, by skillful advertising and salesmanship modify and shape in some degree the nature of demand, but beyond certain rather indefinite limits even high-pressure salesmanship cannot go. However, in the marketing of commodities, "the exercise of critical judgment, of shrewd reasoning, of mental strategy takes place principally on the part of sellers." Individual purchases for personal or family use are necessarily on a small scale and subject to the limitations of a small-scale industry; but the purchasers for railways, public utilities, manufacturing plants, large institutions and hotels are likely to exhibit "shrewd reasoning" and "mental strategy." Articles purchased by large concerns may be required to measure up to definite specifications in regard to quality. Possible changes in demand, in supply of raw materials, in price levels, and in the business cycle complicate the problem of the purchasing agent.

Little uniformity is observed in marketing methods. Bridges and steam boilers are sold direct. Grain is often sold through jobbers or wholesalers. Clothing may be marketed directly by the manufacturer to retailers. House-to-house canvassers sell a variety of articles. Combination and integration in industry are tending to place under the control of one corporation the entire process of manufacturing and marketing. A large automobile company may make the retailer an agent for the corporation instead of an independent business concern. A shoe manufacturer may establish his own retail stores or he may sell to independent dealers. Goods are sold only for cash, or on the installment plan, or short-time credit may be allowed. The independent middleman may be eliminated, but his functions must be performed by some individual or group of individuals.

Marketing Functions. Marketing is not a unitary process. In addition to selling and transporting goods, several other services are performed in the field of marketing. The product must be assembled and, in the case of many commodities, shipped in large quantities. The retailer sells in small quantities; the assembled units are divided so that they may be sold by the unit or the dozen. Frequently goods must be packed for shipment or for temporary storage. Methods of payment, credit, collection, and insurance may be included as part of the machinery of marketing. The retail store or market place must be prepared to furnish products of the size, quality, color, and price that the customer desires. The salesroom should be neat and attractive, and the service prompt and courteous, in order to insure sales even though prices are low.

Cost of Selling Goods. The cost of selling goods in small quantities is high. On the average nearly half of the consumer's dollar is absorbed in the cost of selling and distributing commodities. A considerable fraction of the cost of selling is spent in order to stimulate demand, in the form of advertising and salesmanship, and to satisfy the demand for convenience on the part of the consumer. A large fraction of the American people live in towns and cities in which rents and taxes are high, and the distance from the places where agricultural and mineral products are obtained, considerable. In cities, terminal facilities are expensive and local delivery costs are not low. There is a "high cost of convenience." The merchant finds that the typical customer wants a thing "when she wants it, how she wants it, and where she wants it." The storekeeper must keep on hand sufficient stocks to meet any unusual demand. His overhead expenses are increased. The carton, sanitary precautions, delivery of purchases, the telephone, rest rooms, show windows—all add to the costs of selling and distribution. There are probably too many retailers, many of whom use inefficient business methods, and also there is much unnecessary shipment of goods.

Standardization or simplification in the varieties or types of goods would decrease both the manufacturing and the marketing costs of commodities. If the sizes and styles of doors in cheap and medium-priced houses were reduced to two or three standardized types, the manufacturing methods could be further simplified, and the total stock of doors carried by the jobbing houses and retailers could be likewise reduced. Costs to the builders of houses would be lowered. The same conditions apply to many forms of clothing and to a great variety of manufactured articles. Multiplicity of styles and individual idiosyncracies in demand increase manufacturing and marketing costs. The Model T Ford car was sold at a very low price because it was very highly standardized. One Ford was exactly like another. The more general use of cost accounting will also aid in improving the efficiency of retailers and help to reduce the cost of selling.

The rise of chain stores and mail-order houses may reduce some of the expenses of retailing, but it seems clear that the cost of marketing will remain high as long as people are crowded into cities, and as long as emphasis is placed upon convenience and cleanliness in the distribution of products. Marketing is doubtless less scientific in its methods than manufacturing, but there is little reason for expecting large reductions in marketing costs in the near future. In recent years chain stores have multiplied with great rapidity. Manufacturers have reached beyond the wholesalers and jobbers to establish stores enabling them to sell direct to the ultimate consumer. Chain stores have also purchased or built plants to manufacture articles which they are prepared to sell. Coöperative marketing, especially of farm products, has expanded rapidly. The new Federal Farm Board may be expected to stimulate further progress. The coöperative store, while successful in Europe, has not up to date scored well in this country.

The old-time independent retailer has by no means been driven out by the chain and department stores. One authority on marketing presents the following estimate of retail sales in the United States:

	PER CENT	VOLUME
Department Stores	16	$6,400,000,000
Chain Stores	12	4,800,000,000
Mail-Order Houses	4	1,600,000,000
House-to-House Canvassers	2	800,000,000
Company and Coöperative Stores	1	400,000,000
Independent Stores	65	26,000,000,000
Total	100	$40,000,000,000

In making sales for a wide variety of trade-marked original-package goods, the so-called independent is little more than an agent for the producers of a nationally advertised brand. The producer fixes the price, advertises the article, and is responsible for the quality. The independents are beginning to form associations for group buying and advertising in order to meet the competition of the chain store and to retain such vestiges of "independence" as may be found to exist.

Advertising and Salesmanship. The American people are spending, roughly estimated, one and one-half billions of dollars annually in advertising. Advertising is a form of propaganda. In the pay of advertising agencies are shrewd, practical psychologists. These experts have learned how to play effectively upon the hopes, fears, and prejudices of men and women so that they will respond with their spending money. It may be suggested that one of the reasons for extensive advertising and high-pressure salesmanship is the inefficiency of the typical purchaser. Again, much of the reduction in costs of production due to efficient engineering methods and mass production is counterbalanced by the added expense of advertising and salesmanship in selling the additional output. Much of the expenditure for advertising is waste. Its purpose is to induce the consumer to buy A's brand of soap instead of B's. Such advertising is purely competitive. In the words of another, "surely no good interest is served when a concern takes a double page in the———, and in two colors displays the picture of a plate of ham and eggs." Large advertising houses calculate that of a million dollars spent in advertising by a big concern, on the average, $850,000 to $900,000 is spent to keep the business which it has and only $100,000 to $150,000 to get new patronage.[1] In recent years competitive advertising has entered a new field. Some of it is directed toward inter-industry instead of within-the-industry competition. The familiar illustration of a cigarette manufacturing concern advising young women to reach for their product instead of candy is an instance of the new alignment of business rivalry.[2] This is super-competition.

However, all advertising contains some elements of competition. If, by advertising a new commodity, as was the automobile a few years ago or as the radio is today, men and women are induced to buy automobiles or radio sets, the sum total of other purchases must be reduced. The purchasers have a certain amount of purchasing power. If a portion of it is spent in an unusual way for a recently advertised commodity, less is left to buy other commodities. The old argument of the prohibition orator to the effect that the dollar spent for beer could not be used to buy bread applies in this discussion.

Advertising shifts demand for one article to another, but it cannot change directly the sum total of the community's demand or purchasing power. The only way in which advertising may increase the total demand is indirectly. Advertising often stimulates new desires; indeed, that is the chief purpose of the large expenditures upon advertising. The appearance of new desires may lead to greater efficiency and initiative on the part of many persons. As a consequence, the total productivity and the sum total of purchasing power may be increased. Certain employers have used the stimulation of new wants to assist in keeping their employees at work regularly. A demand for better clothes or a Ford will lead employees who heretofore have been satisfied with the returns from four days' labor to work regularly five or five and one-half days per week.

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[1] Professor H. J. Davenport.

[2] See Chapter on Value and Price.

Advertising may decrease other costs of marketing. After a particular brand of goods—for example, canned goods—has been well advertised and a large number of consumers have become very familiar with its merits, the time of the purchaser and the storekeeper is economized. The buyer asks for Blank's goods. He knows what he wants; "shopping" and higgling are reduced to a minimum. The importance of the goodwill attached to the extensively advertised trade-mark is the cause of the struggle going on between the chain stores and the manufacturers in regard to the branding of products. The chain store is trying to force the use of its name, while the manufacturers are insistent that the brand name be one which discloses the producer. In early days the merchant prince dominated; later, the manufacturers won out. Now, a new fight is on. As a consequence the chain stores may reach out and control their own manufacturing plants, and the manufacturers may more and more control their own distributing outlets. It is a battle for "the loyalty of the consumer."

Newspaper and magazine advertising have been utilized to such an extent that the function of news dissemination and of educating or pleasing the readers has been subordinated to that of carrying advertising. The chief function of many popular journals is that of an advertising medium. Reading matter is skillfully sandwiched in between advertising in such a way as to attract attention to the latter. The news presented, the editorials, and the articles printed are colored so as to assist, or at least not to injure, the advertiser. Profits in the newspaper and magazine business are derived chiefly from the advertiser. Publishers and editors too often cater to the purchasers of advertising space instead of to the readers of the publications. The radio is developing a new form of advertising in which music and other forms of entertainment are judiciously interspersed between skillfully worded encomiums upon the merits of the article produced by the company furnishing the program. The purchaser of a much-advertised product is compelled to pay for all sorts of magazines and radio broadcasts, good, bad, and indifferent, when he buys.

Advertising has become a powerful factor in our daily life. The editor of a well-known weekly meditated upon the rise of the chewing gum business after the following fashion: "In the span of a generation we have seen advertising transform a childish impulse to masticate for mastication's sake into a mighty hunger for thousands of tons of chicle." Advertising and salesmanship are forms of the famous art of persuasion. Today advertising is often essential for successful merchandising; but the formula for business success is twofold. "Have something to sell and tell people about it." Too many advertisers are prone to stress the latter part of the formula and overlook the first clause. Political campaigns and reform movements are also examples of the use of persuasion. The right to use persuasion in a peaceful manner is a foundation stone of democracy. During the World War the advantages of thrift were given wide and effective publicity. We are beginning to use advertising to aid in the prevention of crime and of accidents. Greater use of the "arts of persuasion" is desirable in the form of advertising, publicity, and education to make people desire things which make for human betterment and for economic and social progress.

Recent Changes in Marketing. The whirlwind increase in productivity, the improvement in transportation facilities, and more especially the development of mass production methods, which have been discussed in preceding chapters, have in turn paved the way for new methods of marketing goods. Shrewd observers tell us that we ride into the land of tomorrow over the roads and in the vehicles of yesterday and today. Tomorrow's problems are being fashioned for us in the heat and turmoil of today's business operations, and today's new problems emerge out of yesterday's thrust ahead.

In the long eras of scarcity which reach from the time man first appeared down to recent times, it was not necessary or desirable to stimulate demand. It was difficult to provide the necessities of life; extra mouths to feed or unusual consuming power constituted a menace to the community. The rapid multiplication of productive capacity has greatly changed the situation. Stimulation of wants and desires has finally attained a place of importance in the business world. Indeed, business has entered a free-for-all struggle to gain the good will or loyalty of the consumer. The development of days and weeks in which consumers are urged to buy some particular article, the use of various slogans, such as "Say it with flowers," are indicative of the methods employed in order to multiply and intensify wants. High-pressure salesmanship, campaigns, contests, "pep" conventions in which are copied the college boy's stuff are new ways of attracting the consumers' dollars.

Increased productivity has afforded a much greater opportunity for the exercise of a considerable range of choice. This in turn has complicated the functions of merchandising. With the growth of cities and the appearance of apartment-house living, lack of space and proximity to stores have made hand-to-mouth buying the rule for increasing numbers of householders. Very few families now buy except for immediate needs. As a consequence, the retail stores must provide certain and punctual service. In considering the recent changes in marketing methods, four factors are worthy of special stress: mass production, the rapid spread of information, obsolescence, and installment selling.

Mass production rests upon two bases: (1) large demand for a standardized article, and (2) the continuity of demand. The ideal in mass production is regular demand for an increasing volume of sales continuing year after year, unaffected by season, fashion, out-of-dateness, or individual idiosyncracies. All changes in demand, whether due to seasonal fluctuations, obsolescence, or individuality in demand, are enemies of mass production. As has been suggested, the Ford factory while the old model was being produced represented the climax in mass, or standardized, production. Its policies were grounded on the assumption that lowering prices would increase purchasers, and that the resulting increased output could be produced at lessened costs per unit. Sales policies were subordinated to production requirements.

Like many other processes and institutions, mass production sooner or later develops opposing forces. It means lowered unit costs of production, higher wages, shorter working days, and larger total profits. But these results of mass production tend to place the consumer in a strategic buying position and make it possible for him to demand other than standardized articles. Simplification and standardization, the idols of mass production, run counter, as national income grows, to the newly cultivated demand for exclusive and varied types of goods. The decision of Henry Ford to change from the old and familiar standardized car to a new model catering in some degree to the mounting desire for style and speed scores the passing of the high-water mark in standardization in industry.

"Style has become a greater factor than economy in the sale of all but sheer necessity products." [1] This statement may exaggerate the present situation, but it pictures a tendency which the last few years have thrown into clear relief. If the demand for an article begins to decline because of changes in fashion, it is now generally recognized that cutting prices constitutes a futile gesture. If short skirts for women are in vogue, long skirts cannot be sold by reducing prices. Ping-pong sets at reduced prices will not sell in an era when golf is supreme. A standardized, but obsolete, article is not marketable. Producers and merchandisers must go with the tide of the consumer's demand or fall into the clutches of a receiver. By advertising they may be able to modify within narrow limits the course of the consumer's demand, but there their power ends. Many a tug of war is being fought between the production experts emphasizing the efficiency of standardization and simplification, and the sales department stressing the growing individuality of demand. The next step may lead us to an "age of merchandising" in which there will be a careful balancing of production and of purchasing schedules, an age in which neither the sales nor the production departments shall dominate at the expense of the other.

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[1] Mazur, Paul M., *American Prosperity*, p. 127.

Better facilities for travel and communication, and the advent of the movies and the radio are bringing almost simultaneously the same news, ideas, and fashions to the people of the entire country. A fashion or fad no longer begins in New York or some other Eastern city and spreads leisurely through the length and breadth of the nation. It is now accepted quickly all over the nation, and likewise it dies out at practically the same time in the city and in the rural hamlet. This modification in demand makes it exceedingly difficult for large producers of fashionable goods to meet the rapid alterations in demand without considerable loss in obsolete equipment and unsalable stock.

Fashion, style, or obsolescence has been playing a more and more important rôle in recent years in causing the replacement before worn out of a great group of commodities. "Wear alone made replacement too slow for the needs of American industry. And so the high-priests of business elected a new god to take its place along with—or even before—the other household gods. Obsolescence was made supreme."[1] In this way, the imminent danger of market saturation was removed. Automobiles, radios, clothing, furniture, lighting fixtures, watches, and spectacle frames are discarded as out of date long before these articles are worn out. The longevity of the style-life has suffered drastic reduction since 1922. Advertising and salesmanship have skillfully been directed in the automobile industry, and in others as well, toward putting the owner in a chronic state of dissatisfaction in regard to the style of his car. The self-starter rendered obsolete the car which must be cranked. The open car was displaced by the closed model; two-wheel brakes, by four; the high-pressure tire, by the balloon; dark colors were followed by the colors of the rainbow. Now, the front-wheel drive is being introduced. Standardization and obsolescence move in opposite directions. The latter calls for a product that is not uniform year after year. Obsolescence makes large stocks of goods on hand a serious financial menace even in a time of stable price levels; it stimulates hand-to-mouth buying. The conflict is on between mass production and up-to-dateness or fashionable demand.

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[1] Mazur, Paul M., *American Prosperity*, pp. 92–93.

Installment selling is not a recent development. Pianos, sewing machines, farm implements, and furniture have for many years been sold on this basis. Bond issues enable a community to get improvements before making payment. Serial bond issues are clearly installment-payment schemes. In recent years installment selling has figured prominently in the marketing of automobiles, radio sets, refrigerators, washing machines, and vacuum cleaners. While selling goods on the installment basis has been a factor in lessening sales resistance and in stimulating demand, it has not played so important a rôle as obsolescence, skillful advertising, and salesmanship.[1]

It may be suggested that the prevalence of purchasing on the installment plan is affecting the matter of ownership. Who really owns the car that is being paid for on the monthly-payment basis? By the time all payments are made the car is traded in for another, and the monthly payments monotonously continue. Where is the line to be drawn between ownership and paying rent for the use of a car or of a radio?

Coöperation in Marketing. In the field of marketing, coöperation may assume at least three forms: the coöperative store, retailers' coöperation, and distributors' coöperation. The coöperative store differs fundamentally in aim from a store operated by a single enterpriser or by a corporation. In the ordinary store the profits go to the owners in proportion to their ownership rights. In a coöperative store the profits received, after paying running expenses and interest on the shares of stock, are distributed among the coöperating purchasers or members in proportion to the amount of their purchases. Each coöperator is required to own at least one share of stock. Upon the stock a definite and low rate of interest is paid, and each coöperator has one vote only. The ownership of more than one share of stock does not increase voting power. The coöperative store has been much more successful in England and several other European countries than in the United States. In several American colleges, however, coöperative stores for students have been successfully operated. It was estimated in 1930 that the number of consumers' coöperative retail societies in the United States was about 1800. Four wholesale coöperative societies were reported.[1]

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[1] *Recent Economic Changes*, Vol. I, p. 401.

Certain retail establishments confronted by the competition of chain stores have coöperated in regard to purchases. A combination of retail units using the same purchasing organization is in position to buy on a large scale and to bargain advantageously with manufacturers and jobbers. Up to date the most notable form of coöperation in the United States is distributors'. The citrus fruit growers of California, for example, have organized the California Fruit Growers' Exchange for coöperative marketing of their fruit. In 1928 the United States Department of Agriculture estimated that 2,700,000 farmers sold all or a part of their products through coöperative societies. Grain, dairy products, live stock, fruit, cotton, tobacco, onions, and many other products are sold through distributors' coöperation. It was estimated that the annual volume of business of these coöperative associations aggregated approximately $2,400,000,000.

QUESTIONS

1. What are the chief advantages and disadvantages of installment selling?
2. How are dynamos, wheat, and electric fans marketed?
3. Obsolescence and standardization are opposing forces. Explain.
4. Can the middleman be eliminated? Can his functions be eliminated?

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[1] *Locomotive Engineers Journal*, February 1920.

CHAPTER X

DIVISION OF THE PRODUCTS OF INDUSTRY

Division of the Products of Production. Goods are produced for sale to satisfy the wants of consumers. The purchasing power of the latter is derived from their receipt of income in the form of wages, rent, interest, profits, or some combination of the four. Goods and services are exchanged for other goods and services. The sum total of the long-run demand of the community is equal to the sum of the four forms of income—wages, rent, interest, profits. Or, disregarding temporary derangements because of foreign trade, the value of the output of the community is equal to the same total. In other words, in the long run the effective demand of the community tends to equal the supply of goods and services produced over and above an allowance for depreciation. The total output of the nation in goods and services priced in terms of the actual sale prices equals the money value of wages, rent, interest, and profits, which in turn equals the monetary income or the effective demand of the nation. The following equations picture the relation:

Total production = depreciation + wages + rent + interest + profits.
Wages + rent + interest + profits = total income = total production − depreciation (wear and tear, obsolescence, etc.).

Temporarily, however, the total may not be the same. More may be produced for a time than is sold and the supplies or inventories of business houses may increase; or, for a time, more may be purchased than is produced and the supplies or inventories will be reduced. With our credit system it is possible to anticipate the future receipt of purchasing power and to purchase goods upon credit or the promise of future payment.

If, in a nation or a community, the consumption of commodities and services equals the production less the depreciation, then there will be no additional accumulation of capital goods or there will be no savings. If, however, the consumption of commodities and services is less than the production minus depreciation, additional capital goods may be produced and the stocks of consumption goods increased. Under such conditions the capital equipment and the stocks of consumption goods are becoming larger; the nation is on the upgrade industrially. It is growing in wealth. Saving means the postponement of consumption and the production of capital rather than of consumption goods. The savings of a nation appear in more machinery, in railways, in buildings, in durable consumption goods, such as pleasure automobiles, pianos, furniture, and dwelling houses.

Saving—the increase in the capital goods, durable consumption goods, and the stores of transient consumption goods—signifies (1) that the community is not utilizing all of its purchasing power for consumption goods, and (2) that it is utilizing a portion for investment in capital goods and stocks of consumption goods. A nation that is saving is producing more than it consumes. Industries producing capital goods, such as the iron and steel industry, are stimulated. The people of a nation may not save or even keep up the depreciation of the nation's capital. In such a case capital equipment will presently be reduced and efficiency lessened. During a great war such a condition may temporarily face the antagonistic countries. The total energy of the people is directed toward producing absolutely essential supplies for the prosecution of the war.

In the long run the money value of imports from abroad tends to equal that of exports to other countries. Temporarily a nation may increase its savings or its consumption of commodities by borrowing from abroad. While borrowing, its imports tend to exceed its exports by the amount of its borrowings. Later, when it becomes necessary to pay interest upon the amount borrowed and to pay back the debts, exports tend to overbalance imports. International borrowings, debt and interest payments, and reparations involve the actual transfer of goods. Only very small fractions of large payments are or can be made in gold or in services.

Production is a matter of joint effort. An enterpriser or manager uses land, labor, and capital in the production of commodities which are to be marketed. Each plays an essential rôle in the productive process. Take one of the factors away and production ceases or is greatly reduced. The total product is due to teamwork, to combined effort and use. It is as impossible to determine beyond controversy the contribution of labor or of capital as it is to ascertain which of a number of automobile parts is the most essential. When all are in place, the car may be driven; when any one of several parts is missing, the car cannot be operated. No one part can be said to be the most important. We are inclined, however, to attribute the leading rôle to the most scarce or expensive article in the group.

Scarce and necessary factors in production are able to demand and receive large returns. When land was plentiful—free—little or no rent was paid for the use of the land. Now, since the best located land in a growing city is small in extent, land rents and land values have been pushed to very high levels. Certain types of workers whose abilities are unusual and the results of whose efforts are much desired may demand and obtain relatively high wage rates, but the individual whose talents are similar to those of the multitude will receive a relatively low compensation. We are prone to attribute virtue and productivity to scarce factors in production. In order to obtain motive power for the automobile, gasoline and air must be properly mixed in the carburetor. However, the driver of the car attributes the motive power to the gasoline because it is costly to obtain. The air, being free, is not considered to be productive. If gasoline were a free good and air were sold for a price, we would give the credit for motive power to the air. The selling price or the investment value of any factor in production depends upon the capitalization of expected earnings after necessary expenses are deducted. A piece of capital or an acre of land is considered valuable because it can be made with proper management to become or to continue income-bearing. The larger the income from a building and building site and the lower the normal rate of interest on such property, the greater the investment value of the property. If a building and building site bring in steady income or a net return of $1,000 per year and normal interest rates for a safe investment of that nature are, say, 4 per cent, the theoretical value of the land and building is $25,000. It is $1,000 capitalized at 4 per cent; or, 4 per cent interest on $25,000 is $1,000.

Rent and Interest. The business man uses his funds to obtain land or capital as needed. He does not draw a hard and fast line of distinction between the two. A large corporation sells bonds and with the funds received from the sale of the securities buys land, factory buildings, and equipment. These are used by the corporation in productive enterprise; interest on the bonds is paid out of the funds received from the sale of the commodities produced. While economists usually draw a sharp line of demarcation between land which is not a product of human effort and capital which is, in our discussion of the business world as it exists today, this distinction may be given little consideration.[1] Business managers buy or rent capital and land; they pay such sums as the relative supply and demand and business conditions seem to warrant.

The term *interest* is used in the business world to signify payments made to obtain loanable funds, purchasing power, which may be used by the enterpriser or the management to obtain land, buildings, equipment, or working capital. Interest is always considered as a percentage—6 or 7 per cent, for example—of the amount borrowed. In business terminology *rent* signifies a payment for the use of some particular piece of equipment, a building, or a certain strip of land that is hired for a period of time; it is expected that at the end of the period the equipment, the building, or the land will be returned intact to the owner. Rent is calculated in terms of money or sometimes in commodities; it is rarely or never expressed in percentages.

Economists usually explain rent as a payment made for the advantages of a particular piece of land over no-rent or marginal land, but it seems clear that the services of land are bought and sold much the same as those of capital in the form of buildings or equipment. The business man uses his funds to buy or rent land when needed exactly as he would do in the case of capital. Land furnishes space or a location upon which business and other human activities may be carried on. The slogan "Under all, the land" expresses the basic importance of land as a foundation. Capital may technically be defined as the product of past effort used for further production. The typical example of capital is a machine, a tool, or a factory building. Land is not a product of past effort, although it is used in productive endeavor.

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[1] The writer draws this distinction in his high-school text, *Elementary Economics.*

Diminishing Returns. When the function of land is reduced to that of furnishing space upon which to carry on human activities, or as providing market opportunities, its desirability or its value in the business world depends upon scarcity and location. A well-located strip of land in the midst of a large city, because of the scarcity of similar pieces of land, offers certain strategic advantages to the owner or user. To obtain the right to utilize this land, a yearly rental will be paid to the fortunate owner. This is called, by the economist, *rent*. Land, like other economic goods, is valuable because and when it brings an income in money, goods, or satisfactions to its owner. Land which is not now rent-bearing, and which has no prospect of becoming rent-bearing, is valueless.

The scarcity of good land is due to the limited land area of the earth and to the existence of a phenomenon commonly called "the law of diminishing returns." On a very valuable piece of land will ordinarily be built a high building. In the manufacturing industry a plant built in the suburbs where land is comparatively cheap will be one-story; it will spread over considerable ground. In a large city the plant will be several stories high; land will be more intensively utilized. Market gardening represents a more intensive cultivation of land than wheat farming and is attempted on land much more expensive than would be profitable for use in wheat farming. In all cases, however, a situation is sooner or later reached in which further utilization of capital and labor upon a given area of land tends to reduce the average output per composite unit of labor and capital applied to or utilized upon the given area. After that point is reached, diminishing productivity per unit is in evidence. It may be profitable, nevertheless, to continue applying labor and capital to the area of ground under consideration after the point of maximum return is reached. Theoretically it would be profitable to do so up to the point at which the returns from the additional labor and capital are equal to the cost of using the extra units of labor and capital. In actual practice the exact point cannot be ascertained with any reasonable degree of accuracy. If there were no law of diminishing returns, theoretically all the wheat needed in the world could be produced on a small area intensively cultivated. One enormously high office building would answer for the great city of New York. But the law of diminishing returns has as universal application as the law of gravitation. New technical methods may, however, change the point at which diminishing returns appear.

Capital and Interest. The economist defines interest as a payment made for the use of capital—machinery, tools, buildings, etc. When an individual or a corporation borrows money, it is ordinarily used to purchase equipment or to build buildings. Therefore, what is really borrowed is capital. It may also be pointed out that the typical sort of present-day saving is actually spending for capital goods rather than for consumption goods. The purchasing power you leave in a savings bank is loaned to businesses and used to buy equipment, buildings, and supplies. These are utilized by the management along with labor and land. The skillful use of capital, such as power-driven machinery, greatly adds to the productivity of industry. The management can pay interest for the use of capital out of the increased productivity resulting from its utilization. Management is obliged to pay interest for the opportunity to utilize capital because capital is scarce. It is the result of saving, of reducing the amount of consumable goods produced and consumed in a given period, and increasing the amount of capital goods produced. Temporarily men and women must curtail consumption in the hopes of increased returns in the future. When the people of a nation save, industries producing capital goods are stimulated. The saving appears presently in an increase in the number of buildings, more transportation facilities, more machinery, and the like. As a direct consequence of savings and the skillful use of the results of saving, the productive units of the nation increase the total national output which is also the national income.

Profits. The business man operates a business enterprise with the expectancy of gaining profits, of making money. On occasion this leads to the making of goods in increasing amounts, and, at other times, to the reduction of output in order to avoid "spoiling the market." Profits may be considered as fees which society pays for the services of business men. Too much may be paid for such services. Profits fluctuate greatly between different industries and between establishments within the same field of industrial endeavor. Too frequently profits have little relation to endeavor or service to consumers. Profits equal gross income less necessary expenses for raw materials, depreciation, wages (including wages of management, or what the manager could earn if employed by another concern in a similar capacity), interest, rent, insurance, and taxes. A monopoly profit may typically be made by restricting output and limiting the supply of an article placed on the market. Roughly speaking, profits may be broken up into two classes: pure, or competitive, and monopoly. The profits emerging from monopoly have been sufficiently analyzed in a preceding chapter.[1] When competition is active and little progress in invention and in the adoption of new methods is being made, pure profits tend to decline toward a minimum. This type of profits grows out of chance, invention, discovery, research, progress. Pure profits emerge as the result of inventions, of improvement in methods of managing and doing work, of price changes, of sudden changes in demand due to fashion, fad, or fancy, or of any other factor which causes rapid changes in either the demand for or the supply of a product.

The manager of a competitive industry may temporarily make extraordinary gains, pure profits, by using new methods or machines. After his competitors adopt the same methods, competition with increased output tends to pull down the price of the product to a lower level and the extraordinary income is lost to the enterpriser. Profits of this kind can only be continued by keeping constantly ahead of competitors. Sudden increases in demand for, or decreases in the supply of, a particular article may enable certain fortunate producers temporarily to make extra profits. Losses may be incurred by a sudden decrease in demand or increase in supply. There are many vicissitudes in the business world which often result in large profits or losses. Pure profits may be looked upon as payments for risk-taking. As the engineer and scientific methods become more and more influential in the councils of industry, excessive fluctuations in the business world may be expected to diminish. Insurance against certain business risks shifts them from individuals and firms to insurance companies, and at the same time transforms the nature of the risk. The coöperative carrying of risks changed what was for one concern a highly speculative form of risk-carrying into a calculable amount of losses for a large group of business organizations. The business man who refuses to take out fire insurance on his building, equipment, and stock is taking a gambler's chance; the business man who insures against fire losses pays a definite premium or loss each and every year. In case his property is injured, however, he receives compensation from the funds of the insurance company. The insurance company is not gambling. It cannot tell which particular building will burn; but it is practically certain that of one million insured properties, a certain percentage will on the average suffer fire losses each year. Speculation on the produce market and in other fields tends to stabilize prices. Speculators are professional risk-takers. The business man because of organized speculation may pass some business risks along to the professional speculators. For this service speculators as a class gain in the long run more than they lose. They derive profits.[1]

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[1] Value and Price.

Opportunity Return. A return or income over and above the amount necessary to evoke efficient productivity on the part of an agent in production constitutes a toll which the receiver of the return is able to levy upon the consumers of the products concerned; it is an uneconomic return or forced gain. In specific cases each one of the four fractions into which the national income is divided—rent, interest, wages, and profits—may contain certain elements which are uneconomic; such incomes may properly be called "opportunity returns" or "rents." The ability to levy such a toll or rent indicates that the toll receiver in some way is able to capitalize the element of scarcity in connection with the factor in production over which he exercises a measure of control. Land rent is largely opportunity return; profits, especially monopoly profits, usually include opportunity returns. The monopolist, the singer with an unusually pleasing voice, the owner of a rare and much-desired article that cannot be reproduced, the owner of a building in a time of rising prices or of limited construction projects, the individual or firm making unusual gains because of unexpected price changes, the owner of land or of a public utility franchise are, or may be, opportunity-toll takers. Such uneconomic returns may be taxed at a high rate without impairing economic efficiency and without the probability of shifting the tax to the shoulders of others.

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[1] See Chapter on Risk-Taking.

Questions

1. In reality saving is a form of spending. Explain.
2. What is capital?
3. How is capital produced?
4. Give examples of the receipt of pure profits.
5. Distinguish between land and capital.

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CHAPTER XI

WAGES

The Sale of Labor Power. Wages are paid for the services of labor. The wages of the unskilled laborer, the salary of the teacher or of the manager of an industrial plant, and the fees of the lawyer or the physician are all in reality wages. The money income of the great mass of people is received chiefly in the form of wages, and a large fraction of the total output of the community is purchased with money taken out of the pay envelop. Wages vary from the low wage of a few cents per hour paid the exploited sweat-shop laborer for irregular work to the yearly salary of a railway president or of the "boss" in the movie world. Wages range from the wage paid the migratory worker to the large fees received by the corporation lawyer with political influence. Wages also differ in different parts of the world or within the same nation. Real wages are higher in the United States than in England or China. Money wages are usually higher in cities than in the rural districts.

A nominal or money wage is the amount of wage received per piece, per day, per week, or per year in terms of money. A real wage is the total of commodities and services which can be purchased with the money contained in the pay envelop. In a broader and more accurate sense the actual wage received also includes those services which the community or the employing corporation furnishes free of charge or below cost, such as educational and recreational facilities. The real wage of a worker depends upon two variables: the money wage and the price level of commodities and services. In the actual wage received a third variable enters—the amount of the services provided through community action. Increases in money wages may be rendered of no avail to the worker by a rise in the price level. Indeed, many increases in money wages are the consequences of a higher price level that endangers the standard of living of the worker and his family. Regularity of work is of greater significance in determining real wages than the money wage per hour or per day, since a high day wage may be accompanied by much loss of working time per year. Living expenses must be paid fifty-two weeks a year. It is the yearly wage that counts. The building trades and soft-coal mining are notorious for irregularity of work.

Organized labor strenuously asserts that labor is not a commodity. The Congress of the United States has solemnly spread such a statement upon our federal statute books. Certainly labor power is marketed in a manner similar to that of perishable commodities. Today's labor must be sold today; tomorrow it has passed out of existence. In one respect the sale of labor power involves consequences very different from those connected with the sale of commodities such as sugar and cloth. After sugar has been produced and is sold, the seller is not concerned with its destination or subsequent use. Whether it is utilized in this place or elsewhere, in this or that fashion, does not affect the life or comfort of the producer. But when a worker sells his labor power, he must go with his labor. The condition of the workshop and the length of the working day are matters of great import to the worker; the location of the workplace also determines, within somewhat elastic limits, the location of his home and the type of home surroundings. We cannot divest ourselves of our labor power as we would an overcoat and turn it over for so many hours a day to the employer. We literally sell ourselves temporarily when we sell our labor power. This peculiarity in the sale of labor power offers what may well be considered an adequate basis for insisting that labor is not a commodity.

Explanation of Wage Rates. The wage theories advanced by economists have almost without exception rested upon a concept of a natural law of wages which it was understood operated in a mysterious, but definite, fashion. Only in recent years has the idea that wage rates are subject to control by social means risen above our mental horizon. If wage rates be subject, within limits at least, to control by human beings, what are the principles which may be used in determining what is a fair wage?

Why should each worker receive what is actually paid to him as a wage? Why not more or less? Why should one human being be paid for services a hundredfold more than another? Why do hodcarriers often receive a larger wage than school-teachers? Why does Babe Ruth get a higher wage than a preacher or a factory foreman? Are there marked contrasts in wage rates due to differences in the supply of various grades and kinds of workers, to differences in productivity, to differences in needs or standards of living? Do workers receive as wages what they earn? Is the amount actually paid by an employer to a specific worker what the latter earns? What does a worker earn? What yardsticks may be used in determining what a man earns? Are actual wages "fair" wages?

Should wages be paid in proportion to output (or efficiency) or effort? If so, how may output or effort be measured? Should wages be paid according to needs? If so, what needs—individual or family? And what are needs? Or, should the wages paid be equal for all workers as was the rate of pay for those who labored in the vineyard of Biblical fame? Should wages rise with increase in national productivity? If so, proportionally, progressively, or regressively? What are the chief sources out of which higher wages may be paid? What relation should wages bear to profits, interest, and rent? Is it for the welfare of the nation that wages be raised? Will increasingly adequate wages lead to industrial peace and efficiency? Will such wages insure greater regularity of work? To what degree do increases in wages depend upon improvement in consumption? What is the "right" wage rate to give maximum motivation to workers? What are the legitimate or fair claims of capital invested in an industry? What is the "right" or most effective rate of profits or of dividends? No one of the many theories advanced by economists is adequate to answer all of these questions; and, with the exception of the bargain theory, none of these theories has gone far toward telling us why John Smith receives $4.00 for a ten-hour day, and James Adams, $25,000 per year for an indefinite working day. However, it is probably true that certain students of wage theories were more interested in determining what *should* be paid than in what actually *is* paid. But the difficulties in determining satisfactorily what is a "fair wage" are even more baffling than those connected with the determination of the reasons for differences in the wage rates which are actually paid.

Let us briefly consider certain wage theories.

1. *The Productivity Theory.* It is urged that wages should be paid in proportion to output, productivity, or efficiency. The notion that the wages and the output of the worker ought to have a very direct relation is quite generally accepted. This theory rests upon the assumption that a worker will do his best only when he is being paid in proportion to output. John A. Hobson, the well-known English economist, declares that "it represents the greatest triumph of the business point of view over humanity." It is clearly not in accord with the Biblical account of the vineyard and the eleventh-hour worker. But, whether we agree or disagree with this theory as the basis for wages which should be paid, let us ask can wages be paid in accordance with the yardstick of productivity?

It is clear that two or more wage earners working by the piece and doing the same kind of work may be paid in proportion to their relative productivity. However, in modern complex industry all workers do not perform the same tasks. All the workers in a factory—managers, foremen, draftsmen, cost accountants, machinists, molders, common laborers, floor sweepers, night watchmen, and shipping clerks—help to produce the finished article. What does the man who screws on nut number 33 produce? How much is the output of the draftsman? How does it compare with that of the pattern maker or of the stationary engineer of the plant? Who knows? How can it be measured?

The difficulty of ascertaining the relative productivity of workers of different grades and activities in one plant is great, but that of comparing the output of all sorts of workers in the network of industries in the business world is far greater. Who, for example, is the most important factor in getting a food product into the hands of the ultimate consumer—grower, packer, middleman, railway worker, deliveryman, grocer, advertiser? What portion of the final or total product is produced by each? All may be necessary. Cut out one or two in the chain between the distant rural district and the great city, and the product does not reach the consumer. Also, a glut with accompanying waste occurs somewhere along the line. At present we tend to reward the scarce factors most liberally. A doctor, preacher, teacher, or scientist is not rewarded financially by society in proportion to the rewards received by the business man. Is the business man's contribution greater than that of the doctor, preacher, teacher, or scientist?

Furthermore, we are justified in inquiring: How much of the work of getting a product to the consumer is due to the skill and efficiency of a particular worker? How much to fellow workers? How much to managerial skill? How much to the state of the arts? Again, how much of a man's own qualifications are due to social conditions over which he has little or no control? A skilled and efficient worker located in an industrially backward country would find little demand for his services, could produce little in terms of price, and would, of necessity, receive low wages. With the retrogression so notable in certain portions of Europe after the Great War, the classes of people especially hard hit were professional men and experts of different types. Little or no demand for their contributions or services exists and their wages have been reduced practically to the vanishing point. This unfortunate situation is due directly to a reversion to a somewhat primitive social and economic status.

Again, what is the productivity of Charlie Chaplin or of Jack Dempsey? Of a great painter, just before or soon after he achieves fame? What is the productivity of the poet or of a United States senator? Obviously, the theory that wages can be paid in proportion to productivity is impossible of practical application. As a rule, however, the advocates of the productivity theory have attempted to apply it only to artizans, not to artists, professional workers, experts, or administrators.

2. *The Cost-of-Living Theory.* According to this theory the wages paid should be equal to the expense of living of the workers, or wages should be paid in proportion to needs of different workers. A revised version of the theory is that wages should correspond to standards of living, or that a "comfort

wage" should be allowed. The corner stone of this wage theory is that each industry should pay at least for the maintenance of its personnel. It is the theory of depreciation and renewal applied to the human elements in industry. If this theory be accepted, an entirely different set of obstacles loom ahead. How are needs to be measured? Are needs to be interpreted as absolutely essential requirements? If so, then the wage rate practically becomes the one famous in the subsistence theory of the socialists. If a more generous allowance is accepted as the proper definition of needs, a new list of difficulties appears. Does a high standard of living tend to increase productivity? (What, indeed, is a high standard of living?) If not, will enough be produced in all cases to allow payment of wages in proportion to needs? A land area possessing only scanty natural resources and no extraordinary market opportunities will soon reach the point of diminishing productivity per worker as the population grows. There seem to be slight grounds for asserting that a high standard of living necessarily increases productivity measured in output. Finally, why not apply the standard-of-living or needs theory to managers and investors as well as to workers?

It is doubtless possible to ascertain the cost of living of individuals and families, including or excluding an allowance for the depreciation of the worker and for the training of his children. It would also be possible theoretically to pay wages equal to the ascertained cost of living, providing productivity were not insufficient. If, however, the cost of living finally agreed upon be that of a family of five, it would be a liberal amount for the worker without dependents. If, on the other hand, it be the cost of living of a single individual, a family of five would suffer unless its income were supplemented by the wages of the wife or children or both. If a worker with a dependent were paid a higher wage rate for the same amount and grade of work than one without dependents, the employers would employ the latter to the exclusion as far as possible of the former. This obstacle might be overcome, as in France, by paying to the worker with dependents a bonus out of a common fund maintained by a group of employers. Cost-of-living wages would vary with changes in the price level, with the size of family, with the locality, with changes in the accepted concept of what should be included in the budget of a family. Should a living wage be considered on the basis of a day, a year, or a lifetime? Should a living wage be the same next year that it is today, changes in the price level taken into consideration?

The amount of the living or the comfort wage has no direct connection with the productivity of the worker to whom the wages are paid or to the total productivity of the community. Could a comfort or a living wage be paid in densely populated and industrially belated India? Doubtful. A land area possessing only scanty natural resources and no extraordinary market opportunities will soon reach the point of diminishing productivity as the population increases. The per capita production will be small. Enthusiasts for cost-of-living or comfort wages or for steadily increasing wages often overlook the population question and its connection with diminishing productivity. Another variation of the cost-of-living theory is the subsistence wage theory. According to this pessimistic view, the wages of the great mass of workers automatically and inevitably tend toward that required for a bare subsistence, presumably for the worker and his family. If wages are above this dreary level, increase in population will result and wages will fall to, or temporarily below, the minimum. This is a theory of exploitation. The subsistence-wage theorists emphasize the significance of the relation between population and productivity.

3. *The Equality Theory.* All wages should be equal in amount. This theory appeals to the spokesmen of the poorly paid, the underdogs, or the unblessed. It is very simple. Conceivably it might be put into practice, but, if actually used, appeal would have to be made to other incentives than those connected with monetary rewards. It seems probable that the productivity of the nation would suffer greatly if equality of wages were achieved. Nevertheless, Tannenbaum urges that "incentive is not a special thing which must have money or inequality to operate." It is true that much of the best work of the world has been done under the inspiration of other incentives than monetary reward. A man likes to do things that the group to which he belongs

approves. This is quite clear in college athletics. Motives other than monetary reward also play important parts in many activities outside the business world, such as, for example, politics, art, literature, and humanitarian movements.

4. *The Bargain Theory of Wages.* The wage actually paid to a particular worker is the result of an agreement between an employer and an employee. The supply of particular kinds of labor and the demand for the same, the skill, knowledge, and necessities of both parties, are factors in fixing the wage exactly as in the case of any commodity. Certain kinds of skill that are somewhat rare and for which there is considerable demand and for which substitutes are difficult are in a favorable bargaining position and the fortunate possessors of such skill obtain high wages. On the other hand, certain workers who can do only the simplest forms of work are in a poor bargaining position. Almost any worker can perform the tasks that he is fitted to take up. Scarce factors in production, whether types of workers or special kinds of land or capital, are in a good position to bargain. Such factors are valued highly. In the words of Professor Leacock, a man "gets what he is worth, and he is worth what he gets."

There is clearly an upper limit beyond which wages cannot go. The total amount paid in wages by a given concern may not reach the total gross income received from the sale of its output. Neither can the payments to workers for any considerable period of time fall below a subsistence wage. Between these somewhat elastic and indefinite limits actual wage rates are fixed by bargaining. This theory is not presented as conforming to ethical requirements; it is a rule which tells us much about the reason for specific wage rates.

Individual and Collective Bargaining. Individual bargaining takes place when an employer bargains with one worker. When the employer is the representative of a large corporation such bargaining also is usually called individual. In reality individual bargaining in its true form only occurs when a single enterpriser hires a worker. In the case of a corporation the employing agent acts for many stockholders; he is the representative of a group. Such bargaining is pseudo-individual. It is neither individual nor is it collective bargaining. In collective bargaining a representative of a group of employers, union, or shop committee bargain with the representative of the owners of the business. While many collective and many individual bargains may be consummated in such a manner as to give material advantages to one party, such bargains are more likely to be reasonably well balanced than pseudo-individual bargains. In the latter case, the dice are loaded. The individual worker is placed in a disadvantageous position for bargaining. His necessities are great; a job means a source of income for his family. He is often ignorant of market conditions and opportunities and his labor is highly perishable. The representative of the employing concern occupies an enviable position as a bargainer. He usually is well informed as to conditions in the labor market. If he does not hire this particular worker, he may be able to get another soon; in any case, profits will be reduced very little.

How May Wages Be Raised? It may confidently be asserted that the old-fashioned tactics of trade unionism of the orthodox type have passed the high-water mark. The fascinating process of screwing up wages and clipping off hours has about gone to the limit under present conditions. The policy of demanding higher and still higher wages with little or no regard for the source whence the wages-fund flows will no longer stand the test. If labor is to get greater returns, labor and management must accomplish more. The problem of incentives is now more vital than ever before in the history of industrial enterprise. Both the owner of the capital invested in the business and the worker who invests himself have lost the immediate and direct interest in the business which was such a notable and significant characteristic of small-scale industry. How can the clock-watching, inert, listless, output-restricting, discontented worker be transformed into an interested, alert, pushing, and efficient achiever? And, how can the managerial staff of a corporation be given the professional spirit that will lead them to be interested in quality and quantity production rather than in more profits irrespective of service to the community? These are two of the most searching problems of modern industry today.

Labor may be expected to push for increased output when it feels reasonably certain that it will receive an adequate share in the increase. Managers and investors are actuated by similar motives. The morale of the working force can be improved only with difficulty or not at all if workers do not share in the benefits of such improvements. Unfortunately the intricacy of modern industry easily conceals cause and effect. It is not clear why John Smith received on Saturday night a certain number of dollars and cents in his pay envelop. Why are large dividends paid to absentee stockholders? Do unsympathetic and greedy individuals determine the actual rates of wages and dividends paid? The public school, the press, the movie, the radio, and the union are developing a type of workers who are critical as well as suspicious and who must be convinced. Labor in the good old days was more ignorant than today, and the excesses of luxury were not so visible as the automobile and modern advertising have caused them to be in the fourth decade of the twentieth century. The sheer weight of loud assertion, custom, authority, or prestige will no longer be sufficient. With the ballot box and organization the worker expects to gain a voice in the management of industry and in the determination of the wage rate.

Accepting the bargain theory of wages as conforming closely to the conditions of actual business life, we are next concerned with the question: How may wages be increased? Are there sources from which higher wages may be derived? The problem of wage payment rests fundamentally upon two basic factors: (1) how much is produced to be divided among the factors of production, and (2) how large a fraction of this total may be claimed by the wage workers? If considered in terms of money value, both employers and employees are interested in increasing (1), but their interests are divergent in regard to (2). However, the amount produced to be divided may in no small measure depend upon coming to some amicable agreement as to (2). This important point is usually neglected in discussions about wage determinations and industrial peace. Dissatisfaction, ill will, and suspicion have much to do with the rising tide of restriction of output and sabotage that is receiving much adverse criticism and little constructive consideration.

The question may be restated in another fashion. The possibilities of increasing real wages lie (1) in taking a larger share of the total product from other factors in production—from rents, interest, and monopoly and competitive profits, or (2) in increasing productivity per capita without undue increase in overhead expenses in the form of land rent, monopoly returns, unnecessary services, and the like. If, however, rent and monopoly returns continue to increase rapidly, it may be feasible to gather an increasing portion of them into the public treasury, and, thereby, allow a reduction in other forms of taxation. Monopoly and differential gains (rent) are in essence national overhead expenses.

(3) Elimination of wastes of various sorts would develop a fund out of which higher wages might be paid—war, armaments, luxuries, harmful and adulterated products, various forms of illth are kinds of avoidable waste. Unwise expenditures by workers themselves—patent medicines, drugs, booze, etc.—tend to lower the actual income of workers in money and in commodities and services which make for well-being. Higher real wages may also be obtained by reducing costs in the production and marketing of commodities as a consequence of more intelligent and scientific purchasing of supplies for the household, and as the result of improvements in the art of housekeeping. The wage problem is in part a problem of direction of consumption, of the education of the purchaser.[1]

An excellent, brief statement of the influences which determine wage rates is found in John Calder's *Capital's Duty to the Wage-Earner.* Calder's view harmonizes with the bargain theory as outlined above. "(1) The volume of the flow of wealth in the country—we cannot divide more than the National Income—nor can restricted diligence on the part of the laborer or reduced enterprise on the part of capital or management do other than cut down the amount of the national income. (2) The relative abundance or scarcity of all the different agents of production—Land, Materials, Labor, Capital, Management. (3) The relative abundance or scarcity of all the different kinds of labor."[1]

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[1] The best statement to date of the sources out of which increased wages may come is found in Hamilton, W. H., and May, S., *The Control of Wages.*

The fact that labor organizations have been and are to a large degree fighting organizations that have been and are almost wholly concerned with "short-run" policies has made practically impossible any careful study on the part of labor of the problems of production or of the sources of wage increases, whether immediate or in the somewhat distant future. The first step in a practical program for raising the level of wages permanently seems to be a careful and scientific investigation into the sources from which wages come and from which increases may be anticipated. A few labor organizations are beginning to look beyond preparedness for industrial warfare toward constructive industrial proposals. One of the hopeful signs is contained in "Industry's Manifest Duty" adopted by the 1923 Convention of the American Federation of Labor. In part this manifesto reads: "Industry must organize to govern itself, to impose upon itself tasks and rules and to bring order into its own house. . . . Industry must save itself. Industry must find itself. Industry must organize for service, for constructive effort, for orderly continuity, for justice to all who participate. It must bring itself to a realization of its mission and to that end it must organize and come together in deliberative bodies where the full wisdom and experience of all may contribute to final decisions."

QUESTIONS

1. Why do machinists receive higher wages than ditch-diggers?
2. Why do hodcarriers often receive higher wages than school-teachers?
3. What does a man earn?
4. May an increase in wages reduce labor costs? Explain.
5. "An industrial society in which certain persons are paid $500 per day while thousands of their brothers are paid only $3 per day is indefensible." Do you agree? Why?

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[1] Pp. 197–198.

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CHAPTER XII

WEALTH AND INCOME

Personal Distribution of Wealth. Wealth is a store or stock of material economic goods; income is a flow of services and goods. Individual wealth may consist largely of claims, such as stocks and bonds, to tangible wealth, but the wealth of a nation or a community consists of the goods themselves. To the individual, wealth gives power to command income in the form of goods and services; it makes possible the satisfaction of wants. Estimates of national wealth and of national income in terms of dollars are neither very accurate nor of great significance. Changes in the value of the dollar, as well as changes in the stock of wealth or the flow of income, will change the totals. The money value of the wealth of the American nation—factories, railways, public utilities, mines, buildings, farms, raw materials, finished and semi-finished products, etc.—was estimated, in 1921, to be about 281 billions of dollars. This huge total included the property owned by the various governmental units. The distribution of this wealth among the inhabitants of the country is very unequal. At one end of the list is the family in extreme poverty with practically no property except a little clothing, household furniture, and other personal belongings, and at the other end is placed the billionaire. In recent decades the total of our national wealth has increased greatly, but there yet remains a very considerable fraction of the population in poverty and without any worth-while claim to wealth. In 1921, Dr. W. I. King estimated that of 41 million property owners, over 5 million owned property valued at $1,000 or less per owner. Housewives and minors constituted a large percentage of the property-less group, which according to this estimate numbered about 67,000,000. Approximately four-fifths of the property owners owned individually less than $10,000. The typical American is not rich, measured either in wealth or in income.

In a land of many Fords, radios, bathtubs, and golf clubs poverty still lingers. For many prosperity is a myth. It has indeed been a myth in recent years for the great army of the unemployed, for the farmer, for those connected with the textile industry, for the soft-coal miners, and for many others.

National and Individual Incomes. The income of the nation is the total of all that the people of the nation produce in goods and services over and above an allowance for depreciation. The annual income may be calculated by deducting from the gross annual production of the nation an allowance for depreciation or wear and tear upon the physical equipment used in the conduct of business. The most reliable figures of a national income available are those presented by the National Bureau of Economic Research. The Bureau estimated the "total realized income" for 1928 at 89 billions of dollars, an increase of nearly 15 billions over 1923. The realized average per capita yearly income is about $745. However, this total income is distributed very unequally. Of the total realized national income for the year 1926 it is estimated that 87.84 per cent was received by the lowest 99 per cent of the income receivers; and it is also estimated that 12.16 per cent of the total income was received by the highest one per cent of the income receivers. The highest one-hundredth of the upper one per cent of the income recipients is estimated to have received 2.05 per cent of the total realized income. It is estimated that in 1926, $2,861,000,000, or about $25.00 per capita, was spent by our governmental units in free public services—education, libraries, charity, recreation, health, sanitation. This sum was dipped out of the national income by taxation. It doubtless came in a large measure from those receiving the larger incomes, but many of the families receiving small incomes were the recipients of more than an equal per capita share of these free public services.

Justice in Inequality. Human beings are born unlike and unequal, and environment often adds greatly to inborn inequalities. The child of cultured and well-to-do parents will often be better nourished, educated, and equipped for the duties and responsibilities of active life than the child of less fortunate parents. Within reasonable limits inequality in the ownership of wealth and in the receipt of income may be justified on the basis of unequal ability and service. We should not overlook the fact, however, that heredity is in part past environment, and that unequal opportunities and advantages have much to do with the apparent differences between those blessed with large incomes and those whose incomes are meager and insufficient. It is difficult to justify on the score of service to mankind or of ethical considerations the extreme differences in income noted in preceding paragraphs. Great inequality in incomes leads to waste on one hand and to want on the other.

It is true that inequality serves as an incentive to more effective effort. A dead level of income and attainments would not spur men and women to active endeavor. On the other hand, extreme inequality may make for pessimism. Too difficult obstacles dim hope, destroy initiative, and check active endeavor. The heavily handicapped become hopeless; incentives fade. At the other end of the economic scale, those born to luxury, the recipients of large and personally unearned incomes, also lack effective spurs to active and helpful endeavor. Inequality of income corresponding roughly to differences in ability and to the results of active endeavor makes for progress. However, the monetary incentive, as has been indicated, is by no means the sole or most potent of incentives. It is conceivable that, under proper conditions, other incentives might effectively stimulate the energies and ambitions of men, even though economic rewards were equal or approximately equal. In recent generations inequality of income in the United States has made possible savings on a large scale, but the urgent need of large yearly increments to the capital of the nation is no longer such as to provide a ground for the justification of extreme inequalities in distribution.

In recent years productivity has so increased in the United States that engineers and economists are prepared to affirm that poverty can be practically eliminated, provided the population does not increase beyond the point at which diminishing returns appear. The present national income divided equally among the families of the nation would lift all out of dire poverty. Nevertheless, further increases in production and in national income seem clearly desirable. More capital in the form of machinery is needed to complete the lifting of back-breaking work from the shoulders of mankind and to allow further reductions in the length of the working day. More and better housing facilities are needed by multitudes of American families. Public buildings and educational and recreational facilities might well be greatly augmented. Increasing density of population requires an increasing public expenditure. We are now in position to demand more emphasis upon art and beauty. A pioneer people cannot afford to divert energy from the necessities to art and the finer things of life, but the United States has passed out of the pioneer stage of industrial development. More productivity per capita and a reduction in the inequality of family income should constitute two important items in the program of the "useful art" of economics.

Questions

1. Distinguish between wealth and income.
2. The United States is often called a wealthy nation. Why? What are the tests.
3. Do you believe that inequality of incomes is desirable? Why?

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CHAPTER XIII

STARTING THE BUSINESS AND LOCATING THE PLANT

The Initial Problem. Many businesses fail to make a profit and ultimately disappear because they were started in a haphazard fashion, without careful consideration of the prospects of business success or failure. The opportunities of financial success for a new business enterprise, for a merger of existing enterprises, or for the considerable extension of an established business should be carefully analyzed before any considerable financial commitments are made. This is a job for a business analyst. Too frequently business men, would-be investors, or promoters are hopelessly optimistic. The new proposals are viewed in the best possible light and obstacles are overlooked. Too often a glib promoter can induce men with money, especially the small investor, to place his funds in a highly speculative enterprise which, it is imagined, will presently pay high dividends.

Projects for starting a new business enterprise may aim to produce (1) an article which satisfies an old demand, or (2) a substitute for an article now on the market, or (3) a new article for which a demand must be stimulated. Obviously uncertainty and speculative features are more prominent in projects of the second and the third than in those of the first type, but the same fundamental points should be considered in all. What are the market opportunities for the product under consideration? Is the forecast in regard to sales merely a guess or is it based upon a careful survey of the field? Do the firms now in the field satisfactorily meet the demand? If so, is the demand likely to increase steadily? Is the demand affected by fashion or fad? If the preliminary analysis of the market be favorable, the attention should be turned to the reasons for assuming that the new firm can enter the field and compete profitably with those now doing business. Will it possess advantages of location, of nearness to raw materials or to markets, or of managerial ability? Does it possess valuable patent rights? Can it obtain an excellent labor supply? Will it be able to get its buildings, land, and equipment on favorable terms?

Is it proposed to begin on a scale which makes for efficiency? Certain types of business, such as the iron and steel industry, require a large amount of capital for efficient initial operation. Other businesses may be started auspiciously with little capital and grow as circumstances may dictate. Many a business has been started in an ambitious and large-scale fashion because its operators are fascinated by bigness and the prestige which is popularly supposed to accompany size. Is the present time appropriate for investing in a new enterprise or would a postponement until a later phase of the business cycle be advisable? These are a few of the obvious items which should be given careful consideration before a business is started in competition with existing industries.

In addition, enterprises planned to produce substitutes of well-known products or new articles should not be initiated until an investigation is made of the probabilities of interesting consumers in the article. What will be the probable cost of a campaign of advertising and propaganda in the interests of the new article? Furthermore, liberal allowances should be made for launching any new enterprise on the sea of business—allowances for developmental costs, such as interest on the investment before the business actually gets started, for designers' and architects' fees, and money for working capital.[1]

Local Grouping of Industrial Establishments. With improvement in transportation facilities and the reduction of the costs of haulage, territorial specialization or geographic division of labor has become a mark of industrial progress. Cotton is produced in the South, a large portion of the corn crop in the "Corn Belt" of the Middle West, and iron and steel in the district along the Great Lakes between Pittsburgh and Chicago. Akron signifies rubber; Detroit, automobiles; Troy, collars; Minneapolis, flour; Grand Rapids, furniture; Meriden, silver plate. The manufacturing of the United States has been carried on chiefly in the area east of the Mississippi and north of the Ohio and Potomac. In recent years it has begun to spill over into the South and West. There is also much international division of labor. The tropical countries furnish us with products that we cannot easily produce. Until a generation or two ago England was acting as the workshop of the world.

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[1] See Chapter on Financing Industry.

With ease of exchanging products each district, section, or nation is enabled to devote a large share of its productive effort to furnishing a supply of the articles which it is specially adapted to produce. A section may make iron and steel products and exchange these for food stuffs and clothing that can be advantageously produced elsewhere. Like specialization among the working population, territorial specialization may increase the total output and reduce the final cost of production and distribution, providing transportation costs are not excessive. The location of industries is, however, ever subject to change with the march of events. In the United States the center of manufacture moves westward at no great distance from the center of population. However, once an industry is well established, certain forces tend to make it stay put. Economic tendencies which reduce the advantages of the old and increase those of a new location are combated by the forces of inertia and tradition. A good example is furnished by the present tendencies in New England.

This pioneer manufacturing region of the United States, by virtue of certain advantages in earlier decades and because of the sustaining power of an early start, has been an important center of industry and commerce. In recent years the South has been developing cotton manufacture and the West shoe factories. The paper industries of New Hampshire and Maine are declining, and the marble industry of Vermont is feeling the effects of the increased use of concrete and steel in building. A relocation and readjustment of industry is in process in New England which is painful, but which should afford examples for the business manager in other sections. Traditional ideas in regard to management and merchandising have been held too tenaciously by the New England business man. The rise of important iron and steel industries outside the Pittsburgh area is another example of the modification of territorial division under the pressure of a new economic situation.

Locating the Industry. After determining that an enterprise should be launched, the next question is: Where shall the plant be placed? The locating of a new enterprise, or of a new branch of an old one, or the relocating of a going concern should be carefully studied. Many industries have failed because guesswork, tradition, or special inducements caused their location in a disadvantageous place. Small, but recurrent, additional expenses or wastes because of improper placement of the plant will weaken any business organization. No enterprise should be located and its plant built without a careful survey or audit of the location as compared with others.

The locating of an industry is a scientific problem. The crux of the matter is so to locate the factory or store that the unit costs of producing and distributing the produce may be reduced to a minimum. The expense of a careful survey of the situation before locating a plant may easily be saved by eliminating certain wastes due to faulty location. A factory or store once located must remain for years. Because of improper location it may be subject to certain constant losses which in a few years may become in total excessive. A preliminary scientific study will pay in dollars and cents. The problem, like many in the field of physics, is one of pushes and pulls, of attraction and repulsion. A combination of forces acting together or in opposing directions may be analyzed and measured. Among the forces and conditions affecting the choice of a location for a plant are: (1) Ease or Difficulty of Access to Raw Materials. What are the costs of getting the material to the plant? Will the supply be exhausted in the near future? (2) Nearness to Markets. Will the market be local, national, or world? A careful study of market opportunities should be made. What is the danger of serious inroads by competitors or by substitutes? (3) Transportation Facilities and Rates. (4) Type of Labor Force Available. (5) Power and Fuel Supply. (6) Climate. The effect of the climate upon the efficiency of workers may be an important factor. A warm and moist climate tends to reduce the output of workers. A fairly warm climate, however, will reduce or eliminate the expense of heating the plant. (7) Government and Taxes. A stable and well-organized government is essential to the development of an industrial civilization. A high tax rate may make it inadvisable to select a particular location as compared with another. (8) Banking Facilities. (9) Living Conditions. A low labor turnover and good morale are easier of realization when the home conditions and surroundings of the worker are attractive and healthful. (10) Possibility of Using Buildings now on a Certain Site. In dealing with business relations involving a considerable number of forces some of which are tied up with human relations, the accuracy of the chemist or physicist is impossible of attainment. Nevertheless, careful study of the problem, an appeal to pertinent statistical information, to past experience, and to probable future tendencies must be superior to guesswork, tradition, or personal prejudice.

In attempting to evaluate the importance of different factors in a specific kind of industry, a system of weighting might be used. The weights assigned would vary with different types of industry. The following weighting on a scale of ten was recommended by an engineer in a specific case of a manufacturing plant. It illustrates the method which might well be followed in other cases.[1]

1. Nearness to raw material, taking into account transportation service and permanence of supply. Weight, 1¼.
2. Nearness to the market, taking into account large cities, transportation facilities, and competitors. Weight, 1½.
3. Labor market. Weight, 2¼.
4. Power facilities. Weight, 1.
5. Influence of climate on labor and on product. Weight, ¼.
6. Utilization of waste products. Weight, ¼.
7. Perishability of raw materials and of finished products. Weight, ¼.
8. Freight rates. Weight, ¾.
9. Legal regulations and restrictions. Weight, ¼.
10. Banking facilities. Weight, 1.

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[1] See Marshall, L. C., and Lyon, L. S., *Our Economic Organization*, pp. 176–177. The weights quoted do not total exactly ten units; they are used merely to show relative advantages.

11. Real estate, including value, character of soil, cost of preparing site, etc. Weight, $\frac{3}{4}$.

12. Building materials available. Weight, $\frac{1}{4}$.

Expansion. As the business grows and the market for the product widens, should the original plant be enlarged and improved or should one or more additional plants be located elsewhere? In the case of a retail store the limit in size is soon reached. Chain stores are composed of many scattered small units instead of a few large establishments. If the articles sold must be seen by the purchasers, obviously the store must be easily reached by its customers. Investigation also indicates that the most efficient store is not a mammoth establishment. Manufacturing industries often find it advantageous to locate plants at different points instead of concentrating the industry in one place. A large baking company will have plants in many cities. The United States Steel Corporation, the big rubber industries, and automobile manufacturers establish branch plants because of market conditions, ease of obtaining raw materials, or reduced transportation costs.

Relocating an Industry. The problem of moving from an established location to another is quite different from that of locating it in the first instance. Large investments in plant and equipment may be sacrificed. An established, well-trained, and contented labor force may be disorganized. Certain advantages of community good will and financial aid may be lost. A sawmill located about twenty miles south of the Strait of Mackinac now obtains nearly all of its logs from north of the Strait. The mill is not moved because of the disorganization of the labor force and of the settled community that would result from such a removal. After a decision as to the district in which the plant shall be located or relocated has been made, other pertinent questions must be considered. Should the plant be placed in a city, in a small town, or in the suburbs of a city?

Large-City Sites. The large city as the location of a manufacturing plant possesses the advantage of a considerable and varied labor supply. When certain industries are grouped around one center, it is usually easy to obtain the specialized labor needed. In Detroit are found a supply of workers familiar with the automotive industry. Subsidiary industries and plants are built to utilize by-products. The city usually is favored with better transportation facilities and lower freight rates than the small town. A larger group of purchasers is at hand, and the opportunities for recreation for city workers and their families are superior to those provided in a small town. Better opportunities for schooling for young workers and the children of workers are found in the city. City libraries are prepared to give special information about the lines of industry developed in the district. On the other hand, the high cost of building sites makes it difficult to provide adequately for expansion. The tax rates are invariably high. If the streets must be used for cartage of raw materials or finished products, the traffic congestion may prove to be a serious obstacle. Labor is more likely to be unionized in the city. This fact may not necessarily be numbered among the disadvantages of the city. If a city or locality is chiefly concerned with one type of industry, it may be severely affected by a depression in that special field. A city or town possessing a diversity of industries is given a maximum of industrial and financial stability. A one-industry town or city is in danger of developing a provincial outlook upon national and state problems.

The Suburban Site. A factory site on the outskirts of a large city often possesses the advantages without many of the disadvantages of a central location. The plant may be placed near railway and street railway lines. Tax rates and land values will be lower than in the city. Better home sites may often be obtained by the workers at lower rentals or lower purchase prices.

The Small-Town Site. The characteristics of a factory site in a small town are practically the opposite of those pertaining to the large city. In the small town few building restrictions interfere with plans for the structure of the plant. The lack of social and recreational opportunities is being reduced by the automobile, good roads, and the radio. An inconvenient location from the standpoint of the employees may result in high labor turnover, difficulty in obtaining desirable workers, discontent, and lowered shop morale—all of which lead directly to higher production costs. Much of the work of town, and, indeed, of city, boosters is ill-advised and unscientific. It usually results in indiscriminate offers of aid to any industry whether the town is or is not a suitable location for the particular enterprise.

Changing Conditions. The factors in the problem of selecting the best location of a business establishment are constantly being modified, power is being transmitted over longer and longer distances at low rates, old sources of raw materials are being exhausted and new ones are being discovered, new materials and new processes are coming into use, congestion in urban centers is increasing and new suburban developments are not infrequent. With improvements in transportation facilities, it is feasible in many cities to locate a plant in the urban district and operate it with employees living in a suburb. The necessity for a large volume of production and modern equipment, and the advantages of a large plant, discourage a firm in building branch plants. However, with size finally come disadvantages of management, the labor force must live too far away, and difficulties in transporting them to and from work arise. A large fire or a breakdown may cripple the entire industry. Decentralization is wise when it is desirable to be near markets or near raw materials that are scattered. Shifts in location come chiefly because of the desirability of getting nearer to important growing markets, better transportation facilities, or more attractive labor conditions. The problem of plant location should be studied and re-studied from time to time by industrial and mercantile organizations.

QUESTIONS

1. Why is careful consideration of the location of a plant desirable?
2. Do you know of any industries which seem to be in the process of shifting from one locality to another?
3. Why did the automotive industry develop in Detroit? The rubber industry in Akron?
4. What are the business advantages of the town or city in which you reside?

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CHAPTER XIV

PLANNING FOR THE BUILDING AND EQUIPMENT

The Plant Is a Machine. An industrial plant is in reality a large tool or machine composed of many interrelated parts. In manufacture the building in which the equipment is housed and operated is one of the most important parts of the plant. In construction work, farming, and mining the equipment is not usually utilized within a specially constructed building. The content of this chapter, therefore, is of especial interest in the study of manufacturing, but certain principles as to the coordination of parts of the production machine are capable of broader application. If the building is not properly designed and constructed, if the layout of equipment and the transportation lanes are not well placed, the management will be forced to function under handicaps. Industry is very complex; there is no standard type of building or of building construction which will answer equally well for all varieties of industries. The kind of product, cost of materials, land values, the type of machinery used, need for light, ventilation, and heating, the probability of expansion, and a multitude of circumstances make the design of each factory building a special case. Each factor in the problem should be carefully analyzed. The factory building and its layout should be planned so as to allow the management to accomplish the job it is intended to do, effectively and with as little waste as is practicable. Since it is obviously difficult and expensive to make adjustments in the physical layout of the plant, a building should not be constructed until a careful study has been made of the layout of machines and departments. The design of the building should be subordinated to the methods of utilizing machines and materials within the building, and to the comfort and efficiency of the men and women who are to be employed under its roof. The building is merely the supporting and containing shell within which the active functioning parts perform their respective services.

While careful planning in the design of a factory building is essential, after the project is actually started its quick completion and early utilization are desirable. Interest charges on the investment grow with the increased length of the construction period. Flexibility is also requisite in planning for the future of any business. The enterprise may expand or unexpected changes in demand may occur. A new process or a new form of machine may cause the original plan to be no longer the best. Today, indeed, "business hath wings."

Financial Elements. This is not the place to consider in detail the different factors and forces which affect the design and layout of a building, but a few features may be alluded to. Every industrial problem has a financial element. What are the costs? Will it be feasible financially to use this material, this plot of ground, or this type of building or machine? Costs vary from year to year and from place to place. Where land is expensive, as within the limits of large cities, the factory building must be as compact as possible and is usually several stories in height. In small towns where land is relatively cheap, a one-story building is financially feasible. Construction with a saw-tooth roof admitting light and air is often used. The increased use of steel, concrete, glass, and electricity has resulted in remarkable changes in the type of factory building constructed. Where heavy machinery is used, this must usually be placed on the ground floor. In certain types of industry gravity can be utilized to aid in conveying the material and partially finished product. In such cases a multiple-story building may be desirable. The probable resale value of a building in case it should be entirely outgrown should not be entirely overlooked while its design is under consideration.

Idle materials and machines are costly. The storage of raw materials and of partially finished products should be cut to a minimum. Storage space must be paid for. The speeding up of freight movement outside the plant and of material and semi-finished articles within the plant cut down inventory and storage costs and increase the output of productive equipment.

In building the plant, this should be kept in mind. Materials should move steadily and smoothly toward the end of the production process. To carry partially finished products up to one floor, then down to another, and then up again is like needlessly carrying goods over instead of around a hill. Meandering routes for semi-finished products within a factory are evils similar to cross freights on a railway system. Both involve unnecessary work and effort, both are costly, both are inefficient from an engineering point of view.

When working on the design of the plant, complete floor plans should be made. Cardboard forms or templates made to scale are often cut and various methods of arrangement tried out. The aisles may be roughly traced. The needs for light, ventilation, heating, and for the removal of fumes can also be considered. It is easy and inexpensive to make adjustments, additions, or reductions while the plans are in the making. Careful consideration of the layout before the erection of the building starts will often save expensive changes later.

Shop Transportation. Many production troubles are found to originate in bad transportation facilities in the shop. Unnecessary picking up and putting down of materials and tools on the part of workers add greatly to the expense account. Lifting, hill climbing, and "pedestrianism" in a plant are cut to the minimum by an alert management. It is brains in the planning room rather than brawn in the shop that count. Conveyor systems instead of pedestrian workers are marks of up-to-dateness. Conveyors may be so used as to set a reasonable pace; conveyors need not mean "frenzied production" and the old "drive" system. It has been said of one plant in the Middle West that "their idea seems to be to make it possible for a one-legged man without crutches to hold down any job in the place."

Lighting, Heating, and Ventilating. There is little danger of over-emphasizing the importance of properly lighting, heating, and ventilating the factory, store, or office building. Output may be increased, accidents and sickness reduced, and the good will of workers retained by giving proper attention to these factors in industrial operation. Plenty of light without glare is the ideal. The modern factory is making better provisions for natural and artificial lighting than was customary a few decades ago. Eyestrain, with its irritating and debilitating consequences, is reduced and the quantity and quality of the output increased as a result. We are rapidly approaching the time when our factories, stores, and office buildings will be kept at a reasonable temperature in summer as well as in winter. Excessive heat or cold interferes with the operation of a plant. Humidity of the air is another factor which may be readily controlled in the factory of the future. Certain industries, such as textiles and food packing, have special temperature and humidity problems. Poor ventilation will cause a slowing down of endeavor, and will increase the number of absences due to colds and other forms of sickness. Mental and manual workers cannot do their best except in properly lighted, heated, and ventilated workplaces.

QUESTIONS

1. The factory is a large and complicated machine. Explain.
2. What are the chief problems involved in shop transportation?
3. What are the most important advantages of good lighting, heating, and ventilating in a factory or store?

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CHAPTER XV

FINANCING INDUSTRY

The Single Enterpriser. The methods of financing a business vary with the type of business organization. The usual types of business organization are three in number: the single enterpriser, or the individual firm; the partnership; and the corporation. One man with some savings may start a grocery store or a small printing establishment. He rents a building, buys the necessary equipment and stock, and hires workers to assist him in the enterprise. The enterpriser is responsible for the operation of the business; he pays for the raw materials, wages, rent, and interest on any borrowed money. If he is able to establish his business on a fairly profitable and stable basis, he may borrow small amounts for a short period of time from the bank. These funds he will use to buy raw material or to pay certain running expenses. By mortgaging his plant the single enterpriser may also be able to borrow from individuals relatively small amounts of money for increase in equipment and inventory. He may turn back into the plant much of the profits received, and thus the business may grow. One man is owner and manager; he is responsible for all the debts of the business, and he receives the profits, if any, of the establishment. His liability is said to be unlimited. In case of a bad business failure, he may lose not only his property in the business but also property he may possess outside the business. A single-enterpriser business rarely becomes very large; it is usually very difficult to borrow large amounts of money (capital) for the purpose of increasing the size and output of the enterprise.

Partnership. In the partnership two or more individuals agree to operate together a particular enterprise. A partnership usually consists of men of somewhat different business experience; one may be a production man, another an experienced salesman, and a third may be an office man who understands accounting and is familiar with making collections. These men pool their capital and experience. Each becomes the manager of a portion of the business. Unlimited liability ordinarily attaches to each partner. Contracts made in the name of the partnership by one of the partners are binding upon the firm. It is, as a rule, easier for a partnership to borrow money from a bank or from individuals than in the case of a single-enterpriser firm.

The Corporation. The corporation has become the most important form of business organization. Practically all of the privately operated railways and public utilities of the nation are managed by corporations. A large percentage of banks and manufacturing plants are organized as corporations. On the other hand, few farms are under the control of corporations, and an increasing number of mercantile concerns are operated under the corporate form. The organization of a corporation requires more legal formality than the partnership. An application must be made by the group of persons proposing to organize a company, to the Secretary of State of the state selected for incorporating. This will be made upon blanks provided for that purpose. The application will give the name proposed for the company, the names and addresses of the incorporators, the kind of business to be carried on, the location of its principal business office, the amount of stock to be issued, and other details of the plan of organization. After the receipt of this information the state officials will issue to the company a charter or certificate of incorporation. The corporation is legally a person and may sue and be sued as a corporation. A corporation may borrow money and issue bonds in its own name instead of in the name of its officers. Its stockholders are not ordinarily liable for the debts of the corporation. Liability is said to be limited. A stockholder may lose all the money he has put into the business, but his property outside the business cannot be attached in case the enterprise proves to be a bad financial failure. The stockholder in a bank is ordinarily subject to double liability; he is liable for an additional amount equal to the par value of the stock he owns. If he owns a share of stock the par value of which is $100, in case of failure, he might lose $100 more than he paid into the bank to obtain the stock. The stockholders of a corporation elect the board of directors and this board selects the president of the company and is responsible for the policies and management of the corporation. Each stockholder is allowed as many votes as he owns shares of stock.

Long-Time Financing. In financing a business short-time and long-time credit may be utilized. There is, of course, no sharply drawn line of demarcation between the two. Short-time borrowing is resorted to for the purpose of buying raw material and stocks of goods which are in the ordinary course of events soon to be sold, and these debts are paid out of the proceeds of the sales. The commercial bank deals chiefly in short-time credit. Long-time financing has for its purpose the securing of land, buildings, and equipment. A corporation ordinarily assembles purchasing power to build its plant, provide equipment, and guide the organization over the preliminary steps before it actually begins producing commodities by selling its stocks, or stocks and bonds. Legally the owner of a share of stock is a member of the corporate body; he is a part owner of the business. The owner of a bond issued by the same corporation is legally a creditor of the company; he is not a part owner. As a matter of fact, the owner of stocks as well as of bonds furnishes money or capital to the corporation. Both invest their funds in a business, but with different degrees of risks and of rights.

Bonds. Bonds are secured funded debts of a corporation. Unsecured notes running for a period of years are also classified as funded debts. Bonds are of many types, but in this country the chief form issued by a private corporation is a mortgage bond. A mortgage is placed on specific portions or on all of the property of a corporation. This mortgage is usually deposited with a trust company as trustee. Bonds are issued which constitute notes or promises to pay bearing a definite rate of interest, with the mortgage as security. It would be difficult to sell a mortgage for $5,000,000 upon the property of a large corporation, but a split mortgage or bonds of $1,000 each could more readily find a market. Five thousand $1,000 bonds may be issued and sold. The security in addition to the promise to pay

$1,000 at some future date and to pay interest regularly in the meantime is strengthened by the mortgage upon tangible property.

The bond certificate is a finely engraved sheet of paper setting forth in legal phraseology the conditions under which it is issued. It is signed by certain officials of the corporation. A second-mortgage bond is second in claims on assets and interest to the original or first-mortgage bond. A collateral trust bond has, in place of the mortgage deposited with the trust company as security, certain securities, such as bonds and stocks. In case the corporation issuing such bonds fails to pay either the interest or the principal sum when due, the trust company holding the mortgage or collateral may go into court and ask the judge for the appointment of a receiver. A receiver would either operate the business in the interests of the bondholders or sell it. The bondholder would have a prior claim upon the income and assets of the company to the stockholder.

A debenture bond constitutes a claim upon the income of the corporation prior to that of the stockholder, but it is not protected by a specific mortgage or lien upon certain tangible property. Bonds may also be classified as registered or coupon. A registered bond carries the name of the person owning it, and his name also appears on the books of the corporation as its owner. It can only be transferred by the endorsement of the owner. The interest is paid by check sent to the owner. A coupon bond is payable to bearer and has attached to it an interest coupon payable to bearer for each interest date up to the time the bond is due. When an interest coupon becomes due, it may be clipped and the amount due collected from the corporation. Sometimes the principal amount of a coupon bond may be registered.

Stock. A stock certificate is also engraved and bears the name of the owner. It indicates that the person named is the owner of a definite number of shares of the capital stock of a corporation. It is signed by certain officers of the company; it is also usually countersigned by a registrar and a transfer agent. The function of the registrar and transfer agent is to make transfers of stock when sold and to prevent frauds and counterfeiting in connection with the issuance of stock certificates. Corporation stock is either common or preferred. Preferred stock takes precedence over the common stock in dividends and in assets if the company ends its existence. The claims of bondholders, however, are prior to those of the preferred stockholders. Preferred stock is issued in a variety of forms and with many different rights and privileges. It usually bears a fixed rate of dividends which must be declared and paid before the common stockholder may receive dividends. Cumulative 7 per cent preferred stock indicates that 7 per cent dividends will be paid each and every year before common stock dividends are paid. If the company does not make enough profits to pay the dividend for one or more years and dividends are not declared and paid, the entire amount of back dividends must be paid before the common stockholders receive dividends. Noncumulative preferred stock merely has a prior claim upon the net profits for a given year.

The common stockholder is the residual claimant. He may receive nothing in dividends or he may receive extraordinary dividends. Even if large profits are made, dividends may be small or even omitted in order that the capital assets of the business may be increased. A stockholder, whether common or preferred, does not possess any contractual rights to an income as does the bondholder. The common stockholders, and sometimes the preferred stockholders as well, have the right to vote at the annual meeting of the stockholders. At this meeting the members of the board of directors are selected and other business is transacted. A bondholder does not possess the voting power.

Very few stockholders attend the annual meetings which are often held in a distant city. Shortly before the annual meeting a proxy is sent to the stockholder. He is requested, unless he intends to be present at the annual meeting, to sign the printed proxy, giving to certain individuals the right to vote for him. At the meeting these individuals come in with stacks of proxies. The proxy affords a convenient way for the group in control of the corporation to continue in power even though they actually own only a small number of shares of stock.

A holding corporation is one organized to buy, control, and vote the shares of other operating corporations. If a holding corporation controls at least 51 per cent of the stock of several operating corporations, it can choose the majority of the board of directors in each company and control the different businesses. Thanks to the use of proxies, 51 per cent is not ordinarily necessary for control. A group controlling the majority of the stock of a holding company may also control several other corporations through the holding company. It is an excellent device for concentrating control without corresponding concentration of ownership. The line between a holding corporation and an investment trust is not always clear and distinct.

The Bookkeeping of a Corporation. In legal terminology, a corporation is an artificial person; in accounting practice, the corporation is considered to be a unit distinct from the collective group of stockholders and bondholders who are investors in the industry. The interest and life of the corporation as a legal entity and as an accounting unit are pictured as distinct from that of the body of investors as well as from that of one investor or of any group of such persons. In the bookkeeping of a corporation a balance sheet presenting assets or resources and liabilities is used. The stock, the surplus, and the undivided profits of a corporation are considered as liabilities because such items belong to the stockholders. These items represent the equity in the business which remains for the residual claimants, the stockholders, after all creditors have been paid. All of the assets of a corporation are balanced by liabilities or items due to the creditors of the corporation or to the stockholders. In a corporation balance sheet the totals of assets and liabilities are equal. A balance sheet pictures the financial situation of a corporation on a given day. The income account presents a statement of income and outgo over a definite period of time, usually one year. The following balance sheet discloses the most important items found in the report of a typical industrial enterprise.

ASSETS	
Real estate	$300,000
Plant, equipment, etc.	700,000
Patents and goodwill	200,000
Investments	175,000
Cash	75,000
Accounts receivable	200,000
Notes receivable	50,000
Inventory	300,000
Total	$2,000,000

LIABILITIES	
Common stock	$500,000
Preferred stock	500,000
Bonds	150,000
Accounts payable	75,000
Notes payable	225,000
Surplus	500,000
Undivided profits	50,000
Total	$2,000,000

Real estate, plant, and equipment should be valued conservatively. These items may be recorded as original cost less depreciation or at what is considered to be reproduction cost. If prices have been rising, the latter may include elements of appreciation in value. It is possible to pad the value of the assets of the company by being too optimistic in regard to the value of land, plant, and equipment. Patents and goodwill are intangible items which are of uncertain value and subject to rapid changes in importance to the business. Conservative accounting would place this item at a nominal sum, say one dollar. Investments refer to investments in the bonds and stocks of other corporations or in governmental securities. These should be included at cost or at market price, selecting the one which is lower in value. Accounts and notes receivable are short-time items upon which the corporation may expect payment in full in the near future. Items that are not likely to be paid should be written off the balance sheet. Inventories consist of raw materials, semi-finished goods, and finished products on hand. Inventories should be valued at cost or at market price, whichever happens to be lower.

The bonds, if any are issued by the corporation, are clearly liabilities. The bondholder is a creditor of the corporation. Accounts payable are short-time items due to firms from which raw materials and supplies have been purchased. Notes payable are usually due to a commercial bank. The surplus and undivided profits may or may not arise out of the earnings of the corporation. If a corporation has been making profits as indicated by the income account and has not turned all of the profits over to the stockholders as dividends, the amount left in the hands of the corporation may be called surplus and be retained permanently as part of the liabilities. An earned surplus will first appear on the asset side as cash, but it may be used to buy more equipment, additional investments, or additions to the inventory. The surplus may be enlarged, however, by making excessive allowances for patents and goodwill or by over-valuing the land, plant equipment, inventory, or investments. The surplus may be increased by reducing the par value of the stock issued. It may be reduced by issuing additional stock to the stockholders without requiring any payment. This is called issuing a stock dividend.

A study of the balance sheets of the company for several consecutive years, together with information as to the gross and net income of the firm, will give a fairly good insight into the financial health of the corporation. The items—cash, accounts and notes receivable, and inventory—are the current assets; the current liabilities are accounts and notes payable. Roughly speaking, the former should be at least twice the latter to insure solvency of the company. A considerable increase in inventory relative to other items year after year indicates a poor selling policy and it shows that an increasing fraction of the capital is tied up in an unproductive fashion. Similar increases in accounts receivable point to poor collections. Large amounts in accounts payable indicate that the corporation is not borrowing at the bank so that it may pay cash to its creditors and take advantage of the cash discounts ordinarily allowed.

Over-Expansion. Many industries have been over-expanded. During a period of prosperity many business leaders become too optimistic. As a consequence, in normal and subnormal years a considerable fraction of the invested capital is idle or only partially utilized. The soft-coal industry is one most evident example of over-expansion. It is a mismanaged or "sick" industry. A business statistician in 1928 called attention to the surplus of "productive capacity" in the textile industry. Similar conditions obtain or are threatened in the iron and steel industry, the automotive industry, and the cement business. In the railway business the Interstate Commerce Commission has power to check reckless expansion. Evidently the American people no longer consider that the railways have an inalienable right to expand indefinitely. Do the owners of an industrial establishment have an inalienable right to expand indefinitely? Is it not reasonable and in harmony with demands of efficiency that the police power of the state be stretched to prevent overbuilding in lines of industry other than railways? In a well-managed manufacturing plant departments are coördinated and dovetailed with one another so that there is no over-development in one department as compared with another. But we have not as yet reached such a happy condition in our national economy. A big industrial establishment works out systematic plans for obtaining raw materials and motive power and a labor force, but there is no national policy for securing regularly the necessities of life for the people of the nation. A harmonious national economy can only be reached as the result of a study of the problems involved and through regulation plus coöperation by individual organizations. Through the control of credit or through direct regulation are we not warranted in refusing to allow any more coal mines to be opened until a situation obtains in which the demand for coal reaches the normal output of the operated mines when running with a reasonable degree of regularity? The allocation of new capital "is the key to orderly growth adapted to the needs of the population."

Tendencies in the Control of Corporations. Industry, whether directed by corporate or by individual management, is a coöperative affair; it demands teamwork between capital, managerial ability, and labor. The corporation is a legal entity separate and distinct from the body of stockholders. As has been indicated, the accountant designates the stock in the hands of the stockholder as a liability of the corporation; dividends paid to the stockholders are considered to be expenditures. The preservation of the corporation as an institution and its further development often cut across the wishes and aims of stockholders. For example, a growing business should accumulate an earned surplus, but, in order to do so, dividends must either be decreased or not paid; temporarily the stockholder's income is reduced because a surplus is accumulated by the corporation. The wage workers employed by a corporation have not as a rule been considered as a part of the institution, and little or no effort has been expended to secure their interest and loyalty in connection with the functions and the preservation of the corporation. Strenuous and well-directed efforts are made to sell the products of a business to the consumers, but, with few and notable exceptions, little corresponding effort is made to "sell" the corporation to its employees, to gain their interest and hearty coöperation.

In the days of the pioneer and of small-scale business, management and ownership were united. The owner was the actual manager; if he employed wage workers he had direct personal relations with them. The business was given the name of the owner and manager. It was, in a very literal sense, his business. The enterpriser was risking his hard-earned savings in the business; he usually put his scanty supply of financial eggs in one basket and devoted his entire time and energy to watching the basket. Risk-taking, management, and profit-making were centered in one owner or a small group of men who were active partners. The corporation has made possible a division of the various "incidents of ownership." The function of the enterpriser no longer devolves upon one man or upon a small group of partners. In the typical corporation of today a large number of individuals scattered far and wide, taking no active part in the management of the industry, are the actual and legal owners. These individuals are the stockholders and bondholders. They come from almost every class and occupation; there are rich and poor, professional men, mechanics, and farmers, men, women, and children.

As the large corporation displaced the earlier and simpler business units and as the stock market expanded, industrial control gradually drifted into the hands of inactive and absentee stockholders, a fraction of whom were primarily speculators. Large corporations now number their stockholders by the thousands. Two corporations boast of approximately one-half million stockholders. To a large portion of this great army of stockholders the purchase of a share of stock is a form of investment. They expect only to be silent partners and hope to receive liberal dividends. These small investors take almost no active part in the industry; they may never ride upon the railway or see the outside of the manufacturing plant in which they are part owners and, theoretically and legally, part managers; they rarely attend a meeting of the stockholders. Their connection with the industry is reduced to two simple activities: they draw dividends, if declared by the board of directors, and once a year they sign proxies giving to certain designated individuals the right to vote their stock at the annual meeting of the stockholders.

A considerable fraction of the stockholders of a typical large American corporation are only temporary owners. Stocks are bought and sold regularly on the stock markets. To many purchasers of corporate securities the investment is only a temporary matter. Exactly as there are floating workers who drift aimlessly from one job to another without acquiring any stake or interest in any business, so there are many stockholders who buy and sell their holdings frequently, who drift from one company to another, who are speculators rather than investors or enterprisers. A shifting body of owners is not especially interested in the goodwill or the reputation of the firm; their prime concern is not related to the permanent improvement and betterment of the business. Production problems are in danger of being subordinated to stock-market speculation, output to profits, quality of goods to prices, consumers' and employees' goodwill to the eager search for immediate dividends. The stock-ticker, rather than cost accounting, scientific management, and personnel administration is, from the point of view of the drifting stockholder, the most important business interest. These temporary owners are, as a rule, pleased to have dividends increased at the expense of depreciation, betterment, and surplus accounts. It is expected, as a consequence of a liberal dividend policy, that the prices of stocks which they happen to own may be quoted at a higher market price. In that event these transient owners proceed to unload at a profit. The disadvantages of a large labor turnover have been given much publicity in recent years, but it does not require expert investigation to disclose the possible disadvantages of transient stockholders and a large stock turnover.

"The separation of ownership and management which is increasingly characteristic of the new capitalism has been accompanied by an increased concentration of industrial control through the development of mergers, holding corporations, investment trusts and voting trusts, by the purchase of industrial stocks by great financial houses, by the growth of the vertical, horizontal, and circular trusts, by the issuance of non-voting preferred and common stocks, as well as by the diffusion of stock ownership among large numbers of the population." [1] Corporation control is tending to pass either into the hands of bankers or into the hands of the active management. The weakness of central-office, long-distant, impersonally controlled big business is growing clear even to the optimistic. The big problem is to get the control of industry into the hands of those who know what to do and how to do it and who are in position to do it and who are interested in the quality and quantity of output. It may be suggested that placing the active management in control of industry will make for efficiency of operation. This may involve the changing of absentee and speculative stockholders into non-voting investors whose financial rights are adequately protected. Is it possible to invent an effective and equitable union of management, workers, and investors that will at the same time reasonably safeguard the interests of the public?

The Use of the Surplus of a Corporation. If the control of large corporations is more and more to drift into the hands of the active, on-the-job management, certain questions immediately arise as to the disposal of the surplus. May not the corporate surplus be considered as belonging to the corporation and not to the stockholders? May not such a surplus be used as logically and equitably to benefit the active managers, the rank and file of employees, or the consumers as to benefit only the absentee and drifting owners of stock in the enterprise? Certain corporations have adopted the plan of definite limitation of dividends, and practically all corporate bonds are limited to a specified rate of interest. A new business philosophy has been hinted at by Henry Ford. Profits should belong primarily to the business; they should be utilized to provide a sounder basis for industry and to make possible better working conditions and more regular employment. According to Mr. Ford, the active working and managerial force and the consumers have claims prior to those of the absentee investors. This almost inverts the customary point of view in accord with which profits belong to the investors who happen to be common stockholders.

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[1] Laidler, H. W., *The Annals of the American Academy of Political and Social Science,* May, 1930, pp. 14–15.

Doubtless the acceptance of such a concept of corporate property rights might well carry with it provisions for the utilization of a portion of the surplus to assure dividends and interest during times of depression and an unemployment insurance fund. Is there any good reason, apart from custom, why an industry should pay more than is necessary in order to obtain funds to be invested in the enterprise? T. E. Mitten of the Philadelphia Traction System believed that the big returns in industry should go to those who take an active part in upbuilding the business—that is, the active management and the men. "There is no denial of property rights in this. It is a mere recognition of human rights, without which no property rights can be maintained. No individual can run one of these corporations today. His success depends entirely upon the degree of coöperation he receives from every employee of the system. In Philadelphia the men did coöperate and that is the whole story. They pinned their faith to a broken-down road and set out to make it pay. Every man who did that was in the best sense of the word a capitalist, and it is to such capitalists that the future rewards of industry more and more must go." The plan adopted by the Dennison Manufacturing Company a few years ago places the control of the business in the hands of the active management as long as dividends are paid to the absentee stockholders.

QUESTIONS

1. Draw a contrast between a partnership and a corporation.
2. How may the surplus of a corporation be obtained?
3. Suppose a dividend of $50,000 was declared on the common stock of the company considered on page 144. What would be the percentage? Make the necessary changes in the balance sheet.
4. Suppose $50,000 of the securities included under investments were sold for that sum. What changes should be made in the balance sheet?
5. If a stock dividend of 10 per cent were declared, what changes should be made?

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CHAPTER XVI

LARGE-SCALE BUSINESS

The Small Establishment. Our attention is easily focused upon the unusual and spectacular to the neglect of the ordinary, prosaic, and important features of everyday life. Much is written and remarked about gigantic corporations in the United States, such as the American Telephone and Telegraph Company, the General Motors Corporation, and the United States Steel Corporation; and we are bombarded by newspaper accounts of big mergers. As a consequence we are coming to feel that business in this country is big business. It will not be amiss to remind the student that the single-individual enterprise, the partnership, and the small corporation continue to play a considerable rôle in the field of American business. In agriculture the corporation is uncommon; in merchandising, in manufacturing, and in construction work the single-enterprise business and the partnership are numerous; in railways, public utilities, and banking, on the other hand, the corporation is nearly supreme. The number of business concerns in 1925, according to official figures, was: individual businesses (with net income), 978,792; partnership (with net income), 309,414; corporations, 430,072; total, 1,718,278.[1]

In 1931, it is estimated that about one-fourth of all business units are corporations. The distribution of manufacturing establishments, employing six or more wage earners, is shown for the year 1923 in the following table. In that year, less than one thousand manufacturing establishments employed more than one thousand wage workers. However, the great basic commodities, such as steel and steel products, and textiles, are produced in large units. Railways and public utilities are also organized on a fairly large scale. The same is true of slaughtering, milling, and tanning.

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[1] Lincoln, E. E., *Applied Business Finance* (4th ed.), p. 27.

WAGE EARNERS	NUMBER OF ESTABLISHMENTS[1]
6–20	54,609
21–50	25,212
51–100	12,346
101–250	10,023
251–500	3,835
501–1,000	1,784
over 1,000	963

The Sphere of Large-Scale Industry. The potent forces which push industry relentlessly on toward larger and larger units and combinations of units may be divided into two classes: those connected with the elimination of competition,[2] and those related to the technology of industry. Standardization and specialization are only profitable as markets pass from local to national and international in extent. Division of labor and the growth of large-scale business go hand in hand. A machine to fashion spokes for wheels would stand idle a large fraction of the year unless a large market for vehicles could be found. The overhead expenses of idle machinery would soon wipe out the savings due to its use and leave a deficit instead of a profit. A highly specialized worker can likewise only be kept working steadily in case the sales of the article of which he is a part producer are large. Small and local markets allow the profitable development of small businesses employing few or no specialized workers. As larger and larger markets become available, the use of standardization, specialization, semi-automatic and automatic machinery, the use of conveyor systems, and many other "labor-saving" devices become feasible from the financial as well as the technical point of view. Among the difficulties confronting large-scale businesses, personnel problems rank high. Routine, red tape, and impersonality take the place of personal contact between management and men.

Small business units tend to persist in those industries the products of which the consumer insists shall not be highly standardized, in which the market reached by one business unit is of necessity small, or in cases where it is difficult to assemble large quantities of raw materials. The making of automobiles is highly centralized, but the repairing of the cars is likely to remain relatively decentralized. The individual units constituting links in a great chain of grocery stores are likely to continue to be of moderate size. The store unit in a five-and-ten-cent business selling highly standardized articles and not catering to the peculiarities of individual taste will be larger than in the case of a store catering to customers having a relatively large income who demand "exclusive" products. The tailor-make garment is produced in a small establishment; the ready-made garment is now usually the product of a relatively large factory. Cheese factories and creameries are small-scale because of the difficulty in bringing a highly perishable raw material from great distances. While small-scale businesses survive in many lines and stand up against the competition of large industrial units, large-scale business is here to stay. It tends to develop most definitely in those lines in which machinery displaces human skill.

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[1] *Recent Economic Changes*, p. 168.

[2] Discussed in the Chapter on Value and Price.

Forms of Combination. Historically considered, attempts to avoid the pressure of competition with its tendencies toward a dearth of profits, and to gain the technical advantages of large-scale business in production, in buying, and in selling the finished articles have led to an interesting, almost bewildering, and constantly changing variety of combinations and consolidations. The simplest and most informal method of combining in order to escape from the inconveniences of competition was the pool. The firms organizing a pool retained their separate entities, but they agreed not to sell below a fixed price, to make a definite division of the earnings or of the territory within which sales might be made, or to sell through a common sales agency. In the United States, the seventies and eighties of last century were the period in which pools flourished. As a rule certain members of the pool would sooner or later violate the terms of the pooling agreement and the combination would come to an end. Pools were also declared to be illegal combinations.

In looking for a more stable form of agreement to ward off the evils of competition, some inventive mind devised the historical or real "trust." Stockholders controlling the stock of several competing companies turned over their stock in trust to a small group of "trustees." The latter acquired the right to vote the stock and thus were able to elect boards of directors for the different companies, pledged to avoid a competitive struggle. The stockholders received "trust certificates" for their stock, and were paid dividends through the trustees. This form of combination was more formal and definite than the pool, but the courts soon declared the "trust" to be a combination illegally restraining trade.

Competing firms thus blocked in their efforts to protect themselves from the pressure of competition in some cases formed a merger. The original firms gave up their separate charters and were formed into one large corporation. This method was legal in most cases but difficult of accomplishment. Another form of combination was soon evolved known as the holding corporation. In essence the holding corporation is quite similar to the trust. In the place of an extra-legal group of trustees, however, was substituted a regularly incorporated organization. At least a controlling interest in the stock of the companies combining was turned over to the holding corporation. For this stock, shares in the holding corporation were received. The board of directors of the holding company could direct the policies of all the subordinate companies.

Another device for bringing about unity of action between several corporations is that of interlocking directorates. One or more men will be chosen to serve on the boards of directors of several of the corporations attempting to ward off the pressure of competition. Many informal gentlemen's agreements have doubtless led to the adoption of similar policies in regard to prices. In recent years two or three hundred examples may be found of associations or "institutes" that supply information in regard to market conditions, business methods, and the results of research and investigation. These loose combinations are often utilized to oppose or favor certain legislation. Directly, however, such associations do not control prices or eliminate competition. Coöperative marketing associations have also been organized in several industries. One of the best-known of this type of combination is the California Fruit Growers' Association.

Development of Large-Scale Business. The actual evolution of large-scale industry has taken two different directions. (1) A business has enlarged by normal increase or by unification with its competitors. This is horizontal combination. (2) An industry which originally bought its raw materials from other enterprises and sold its product to other fabricators or to wholesalers has reached out both ways until it may control the production of the article from the mining of the raw material until the finished product reaches the ultimate consumer or the retailer. The United States Steel Corporation was one of the early examples of the second or vertical combination or integration. This big organization owns iron mines, coking ovens, transportation facilities, blast furnaces, rolling mills, and other plants producing a variety of iron and steel products. A chain-store group may own factories and farms, perform its own jobbing or wholesaling functions, and do much of the work of transporting its supplies in trucks belonging to the concern. The effect of combination is usually to standardize business methods and to eliminate certain wastes due to the unnecessary handling and transporting of commodities. A large organization may prevent cross freighting by filling an order from the plant nearest the location of the purchaser. With a large number of competitors an Eastern concern may obtain an order from the West, while Western concerns may ship to the East. A vertical combination may easily regulate the flow of materials into and out of its various establishments so as to give greater continuity and smoothness of operation than can be given by a considerable group of independent and competing firms.

Viewing consolidations from another angle, we are able to discover three reasonably distinct types or levels of industrial organization. (1) The establishments or plants—the producing units—are large scale or small scale. (2) Separate production units are placed under one management. This type of merger relates to the scale of management. Chain stores or branch banks are illustrations of this variety of consolidation. (3) Holding corporations, interlocking directorates, and the new form of investment trust are examples of the ascending scale of financial control over a variety of enterprises, frequently of a very dissimilar nature.[1] The early trust movement in this country had for its chief purpose the stifling of competition and the acquisition of monopoly power. The recent merger usually makes a call for more capital, floats new securities, endeavors to reduce production and marketing costs, and develops a program of national advertising. The fashion of forming mergers may easily be carried to extremes. New administrative and marketing problems arise. Standardization, impersonality, and red tape are in danger of replacing the catering to individual tastes, personal relationships, and flexibility of organization for which smaller establishments are often praised. Mere size may be an indication of weakness rather than of strength. Before attempting a merger or consolidation the situation should be studied carefully.

Investigations of department stores and of specialized retail stores, such as jewelry, grocery, and shoe stores, indicate that the minimum cost of doing business is attained in stores of medium size. An increase in size tends to augment the expenses of running the business in comparison with the volume of sales. In a considerable variety of industries, big and little businesses exist side by side in competition. "There is such a thing as trying for too much gross business," writes Babson, "because the point eventually is reached where additional business leads to loss in profits rather than gain." The proper slogan is: "Better business, not bigger business."

Antitrust Legislation. Before the passage of antitrust legislation, under the common law which the United States inherited from early English practice, contracts intended to restrain trade were invalid and unenforceable. Many of our states passed legislation directed against "combinations in restraint of trade." In 1890 the federal government, under its constitutional power to regulate interstate commerce, passed the Sherman Antitrust Act. This famous piece of legislation is still (1931) on our statute books. It declared all combinations in restraint of interstate or foreign trade to be illegal. Few prosecutions of combinations of industrial concerns occurred until President Roosevelt's administration. In the American Tobacco and the Standard Oil decisions, handed down in 1911, the Supreme Court adopted the so-called "rule of reason." The position was taken that only those combinations were illegal under the Sherman Act which unreasonably restrained trade, which deliberately intended substantially to reduce competition. The American Tobacco Company and the Standard Oil Company of New Jersey were declared to be combinations unreasonably restraining interstate trade and were ordered dissolved. It has been urged that the Supreme Court of the United States in developing the rule of reasonableness was actually legislating, a function delegated to Congress by the Federal Constitution. The practical results of these decisions in eliminating monopoly and in forcing a return to competition were not of great significance. In 1920 the Supreme Court refused to order the dissolution of the United States Steel Corporation. It was held that this giant corporation did not unreasonably restrain interstate trade.

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[1] Thorp, W. L., *General Management Series*, No. 92, of the American Management Association, 1929.

In 1914, Congress passed two measures of significance in the field of antitrust legislation—the Clayton Act and the Federal Trade Commission Act. The first was intended to clarify the Sherman Law. It prohibited local price-cutting and the use of exclusive contracts of leases. Holding companies and the practice of placing the same man, or the same group of men, on the boards of directors of competing companies was declared illegal, if such practices led to a substantial restriction of freedom of trade. The second law of 1914 established a commission with powers of investigation into the practices and organization of corporations engaged in interstate commerce, except interstate carriers and financial institutions. The Federal Trade Commission is authorized to define, and to issue orders preventing, unfair trade practices. The orders of the Commission can be enforced only through the federal courts. The Commission has done much "to build up and maintain higher standards for competitive business methods in general" and to eliminate "unfair trade practices." The Webb-Pomerene Act, passed in 1918, is a visible manifestation of a new attitude toward business combination. The Transportation Act of 1920, authorizing the Interstate Commerce Commission to draft plans for the consolidation of the American railway network into a few large systems, is another indication that the era of blind and angry "trust-busting" is temporarily, or permanently, of the past. The Webb-Pomerene Act permitted combinations in export trade which would be illegal in domestic trade. It was urged that combinations of American exporters would be able effectively to cope with foreign competition in the markets of the world. There is little evidence indicating that this law has especially benefited our export trade.

Unfair Competition. The Sherman Antitrust Law was designed to smash large combinations. In 1890 large aggregations of capital were unusual. Small-scale business and competition were accepted as desirable; it was a tradition that competition would insure fair prices, good quality of goods, and fair treatment of customers. When the so-called trust suddenly thrust itself over the horizon and threatened to interfere with competition, naturally the first impulse was to kill the monster, turn the clock backward, and return to the situation in "the good old days." "Trust-busting" became a popular sport with the politicians. Approximately a quarter of a century later the Clayton and the Federal Trade Commission Acts indicate a change in the popular attitude. The problem becomes one of preventing unfair competition on the part of large corporations. Good trusts may exist; indeed, only the unruly ones should be curbed.

Competition is supposed to make for the survival of the most efficient concerns. Unfair competition injures the efficient and favors the larger, inefficient, or predatory organizations; it allows the survival of the unfit. It is not easy in all cases to draw a sharp line of demarcation between fair and unfair competition. A particular practice might seem fair in the case of a small firm, but be palpably unfair when resorted to by a large and dominating business organization. The following practices may be safely included as constituting unfair competition: (1) Local price-cutting. Prices are cut by a large concern in a locality where it faces a local competitor. Elsewhere prices remain unchanged. After the local competitor is forced out of business local prices are again raised to a profitable figure. (2) The use of special brands. This practice is a modification of local price-cutting. A special brand of goods is put on the market at a very low figure where local competitors are confronted. The special brands are not put on the market elsewhere and disappear after the competitor drops out. (3) Requiring merchants to refuse to handle the goods of a competitor. In this way, the small competitor may find his market greatly reduced. (4) The use of spies, intimidation, or threats. (5) The existence of subsidiary companies disguised as independent and competing firms. (6) The use of a uniform delivered price was declared unfair in the case of the "Pittsburgh plus" plan of pricing steel products. The delivered price was fixed at the Pittsburgh mill price plus the freight charge from Pittsburgh to the town of the purchaser. This price was maintained even though the steel was produced and purchased in Chicago or elsewhere instead of Pittsburgh. The steel products thus priced could not be purchased f.o.b. and the freight charges be paid by the purchaser. The actual f.o.b., or mill, price would vary greatly in the case of purchasers living in different localities.

From time to time objections are made to "government in business." It is true that history records many pendulumlike swings in attitudes toward the right of government to interfere with the individual in the interest of the group or in the interest of general well-being. At the time the Federal Constitution was adopted, the American leaders were adverse to much governmental interference with individuals and business firms. To-day we have moved quite far from a non-interference policy. Reverting to the attitude recently assumed toward unfair competition, it may be asserted that the amount of governmental interference with business policies depends in no small measure upon the attitude of business toward consumers and workers. The industry that avoids unfair practices, that treats its customers and workers with consideration, that develops purposes and aims other than immediate monetary gains will not in the near future be in great danger of excessive governmental interference.

QUESTIONS

1. Differentiate between "fair" and "unfair" competition.
2. "Increasing the size of an establishment always lowers the costs of doing business." Do you agree?
3. What was the Sherman Antitrust Law? Should it be repealed? Why?

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CHAPTER XVII

MONEY AND CREDIT

What Is Money? We are living today in a money—or credit—economy. Goods and services are exchanged or sold for money, and with the money received other goods and services are purchased. Barter, or the direct exchange of goods or services for other goods or services, is almost unknown. Wage workers are not paid for their services directly in shoes or shelter; wages first take the form of money or credit. Money is a tool which enables people to make exchanges easily. Barter or exchange without the intervention of money had many inconveniences and the gradual introduction of money constituted an important step in human progress. Money is not wanted for itself; it is desired because its possession amounts to purchasing power. Money or credit spells ability to obtain goods and services; it is a representative of other goods. It is clear that money or credit cannot be consumed. People living in a complex interdependent society actually desire not the money but the commodities which can be bought with the money or the credit.

The Functions of Money. One important function of money and credit is to keep the great industrial plant called the United States of America operating steadily. If, in a time of depression, the American people cannot purchase the goods they themselves are able to produce by utilizing the gigantic industrial mechanism of the nation, money is not performing completely its function as a tool for facilitating exchanges. Other functions of money are those of acting as a medium of exchange, as a storehouse of value, and as a standard of deferred payments. The first money was a commodity which was valuable and quite generally desired. Before used as a medium of exchange for trading purposes, certain commodities were doubtless used for gifts, tribute, ornaments, and in religious ceremonials.

These articles were recognized as generally desirable and became the first forms of money. Some ingenious primitive man, who had difficulty in trading some commodities he possessed for something he wanted, hit upon the device of trading for a generally desired commodity, such as arrowheads, beads, cattle, or cubes of salt. He then sought someone having the article he wanted and exchanged his money commodity for the former. General acceptability is a characteristic of money.

Money is also a valuable yardstick by means of which the value of commodities and services may be measured. Unfortunately the money that modern peoples use as a yardstick or measuring unit fluctuates; it is not stable or fixed as is the yard or the pound. We attempt to measure value in terms of a definite weight of metal—gold. A dollar is always a certain weight in gold of a standard fineness; but dollars do not always purchase the same quantity and quality of goods and services. The dollar fluctuates in purchasing power; it is a variable yardstick for the measurement of value. A certain number of dollars returned in payment of a debt may purchase more or less than when originally loaned. This tendency to fluctuate in value is especially undesirable in connection with the third function of money—that of acting as a standard of deferred payments. Money is used as a standard of deferred payments when goods and services are sold and the purchaser agrees to pay for them in money at some future date. Figuratively speaking, according to Professor Kemmerer, if our yardstick of value was 36 inches in length in 1879, when the United States returned to a gold basis, it was 45 inches long in 1896, 13½ inches in 1920, and 21 inches in the fall of 1927. Over a period of half a century the gyrations of our yardstick of value, the gold dollar, are quite remarkable and disquieting.

Types of Money in the United States. This country and nearly all other important nations have adopted the gold standard. Gold of a certain weight and fineness constitutes the basic or standard money. Other types of money are directly or indirectly redeemable in gold. In gold standard countries gold, and gold only, is admitted to free coinage; that is, the government agrees to accept all the gold of proper fineness which is brought to the mint. There is no legal limitation upon the amount of gold which may be accepted by the government mint. In the United States no charge is made for minting gold if it is of the proper fineness when presented at the mint. Technically speaking, gold coinage in this country is free and gratuitous. The American gold dollar is a coin weighing 25.8 grains of nine-tenths fineness, or it contains 23.22 grains of pure gold with some alloy to make it durable. The gold dollar is not actually coined. Gold is only coined in larger denominations. The gold dollar of standard weight and fineness is our universal legal tender for the settlement of all payments. As long as free and gratuitous coinage of gold continues, there can be no important difference between the value of coining gold and gold bullion. One is freely convertible into the other.

Other forms of money now issued in the United States are gold certificates, silver dollars, silver certificates, subsidiary coins, United States notes (greenbacks), national and federal reserve bank notes, and federal reserve notes. A gold certificate circulates instead of gold. There is deposited in the United States Treasury a dollar in gold for every dollar of gold certificates in circulation. The gold certificate is essentially a warehouse certificate. The silver dollar contains 371.25 grains of pure silver. Only a limited amount of silver is coined; silver is not admitted to free coinage. The silver in the silver dollar is not actually equal in value to the gold dollar, but it is maintained at par because of the limited number in circulation and by the legal obligation of the Treasury to keep all kinds of money at a parity. In actual practice the silver dollar is redeemable at par in gold. The silver certificate is also merely a warehouse certificate indicating that the Treasury is holding in its vaults a silver dollar for every dollar circulating in the form of a silver certificate. The smaller coins—half-dollars, quarters, dimes, nickels, and pennies—are put into circulation in limited quantities for convenience. They are actually worth less than their face value and are maintained at par because the Treasury is prepared to redeem them in gold. United States notes, or greenbacks, are promises to pay issued by the federal government. They are payable to bearer and do not draw interest. Greenbacks were first issued during the Civil War. They were not at first redeemable in gold. Since January 1, 1879, the Treasury has been prepared to redeem the greenbacks at par in gold. Consequently they are maintained at a parity with gold. The number in circulation is fixed by law at $346,681,016. For the redemption of these notes and other forms of money the Treasury maintains a reserve of gold in its vaults. Directly or indirectly, all forms of money issued by the federal government are redeemable in the standard money—gold. The national bank notes, the federal reserve bank notes, and the federal reserve notes are discussed in the chapter on banking.

Credit. In recent decades credit has become an important tool of exchange. Many transactions are settled without the use of money; credit instruments—checks, drafts, bills of exchange, travelers' letters of credit—are used. Indeed in some cases, a check is not given, but the recipient of wages or other income is given an additional credit on the books of the bank in which he has a deposit. This is accomplished by means of an order given to the bank by the company making the payment. In essence, a bookkeeping transaction occurs within the bank. One account is reduced and another increased, but purchasing power is transferred. In other transactions, the time element becomes important. Goods, materials, and services are exchanged for promises to pay at some future date—notes, bonds, acceptances payable at a definite date, etc. Business men and corporations borrow money; that is, purchasing power is turned over to them for a promise to pay, at some future date, the original sum and an additional amount as interest. The lenders lose for a designated period the right to use this purchasing power. In reality, when "money" is said to be borrowed, when a credit transaction takes place, the real borrowing is that of purchasing power, or, more accurately, it is borrowing the equipment and building obtained by using in the market the borrowed purchasing power. Return payment, however, is in money or a credit equivalent—purchasing power. Business men borrow purchasing power in order to obtain supplies or in order to build factory buildings and buy machinery. The lenders temporarily give up their present purchasing power for a promise to return it at some future date with interest.

Price Fluctuations. Since 1800 there have been in the United States three peaks in a curve of general prices. These three periods of high prices and low purchasing power of the dollar are coincident with a war epoch—1812–1814, the Napoleonic Wars and the War of 1812; 1864–1866, the Civil War; and 1920, the World War. After the first high point, about 1814, prices fell irregularly for approximately thirty years. Again, after the Civil War peak prices tended downward until 1896. Since 1920, the general trend has also been downward. The drop in prices was very abrupt from May, 1920, to January, 1922. This downward sweep was followed by a slight recovery. Since 1926 (December, 1930) the trend has been slowly downward. Irving Fisher's wholesale price index for 200 representative commodities illustrates clearly the trend of prices and of the purchasing power of money in recent years. The average for the year 1926 is used as 100.

YEAR	INDEX NUMBER OF PRICES	PURCHASING POWER OF THE DOLLAR
1913	69.8	143.3
1920 (May peak)	167.2	59.8
1922 (January low)	91.2	109.6
1924	98.9	101.1
1926	100.0	100.0
1927	94.2	106.2
1928	98.2	101.8
1929	96.3	103.9
1930 (February)	92.7	107.9
1930 (Week ending December 19)	79.4	126.0

Effects of Price Fluctuations. The effects of an unstable monetary standard are inconvenient and often tragic. A man purchases what seems to be a sufficient amount of life insurance to provide adequately for his family in case of his death. If, however, prices rise, the purchasing power of the insurance dollars falls. An income that was adequate in 1910 was meager in 1919 because the dollar had depreciated in purchasing power over 50 per cent. Persons having fixed incomes in dollars are injured when prices rise and benefited when prices are tending downward. If an investor buys a bond due in ten years and the price level rises during that period, he loses because the dollars paid to him will purchase less than the dollars he parted with to buy the bond. Debtors lose in a time of falling prices; it is more difficult for them to get the dollars with which to repay the loan. Each dollar of the debt has appreciated in value—in purchasing power. The inventories of a manufacturing plant consisting of raw material, semi-finished products, and finished, but unsold, products tend to become less and less valuable in a period of falling prices. With good and dependable transportation facilities, a hand-to-mouth buying policy is desirable and profitable for the manufacturer and merchant in a time of falling prices. A long period of rising prices leads the merchant and manufacturer to be careless in buying raw materials and stocks of salable goods.

A Stabilized Currency. A currency which fluctuates little in value is highly desirable. Gold fluctuates in value from time to time, but relative to other commodities it exhibits a considerable degree of stability. Gold used as a money constitutes a large supply which is used over and over again. The new gold mined each year is only a small fraction of the total gold monetary supply in the world. Consequently the total supply of gold cannot be increased or decreased rapidly. At present there is no excellent reason for anticipating large increases in the amount of gold mined yearly. There are, however, several plans advocated for greater stabilization of the currency, but, unless another world war occurs, there is a reasonable basis for the opinion that we shall not in the United States in the near future experience violent or considerable changes in the purchasing power of the dollar. The suggestion may be made that slight reductions in the price level may be anticipated during the next decade.

Questions

1. What are the chief functions of money?
2. Does the price of gold fluctuate?
3. What interests are injured when the price level rises?
4. Who are benefited?
5. Why is the value of gold more stable than that of iron or coal?

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CHAPTER XVIII

BANKING

The Function of a Commercial Bank. The business of operating a commercial bank is considered by the community to be different from other types of industry. There is much competition in banking, but it is insisted that fairly rigid regulation is nevertheless required. It is impossible to start or to operate a banking business as informally as a grocery store. The commercial bank is assumed to be affected with public interest. Confidence is generally essential in successful banking. A failure of one or two banks causes a cloud of suspicion to hover over all the remaining banks in the immediate district. Confidence in the integrity of the managers and in the solvency of the business is less significant in other lines of business endeavor. The bank primarily deals in credit, and credit rests in no small measure upon confidence. The function of a commercial bank is that of "manufacturing credit." More accurately, however, the bank is organized to transform personal credit into more generally accepted bank credit in the form of paper money or of deposit rights upon which checks may be drawn. The explanation of this statement may be presented with greater lucidity after an outline of the historical evolution of banking has been studied. Another function of a commercial bank is usually the safe keeping of securities. Commercial banks may also have trust, bond, and savings departments, but these departments are features outside the work of the commercial bank in its restricted form.

The Origin of Banking. The modern commercial bank traces its origin back to the goldsmiths of England, about the middle of the seventeenth century. Its first function was that of furnishing a reasonably safe place for keeping gold and silver. The goldsmiths of those days possessed strong boxes in which they kept their supplies of gold. Presently others, fearing robbery, asked the goldsmith to keep their money and valuables in his strong box. In that event, the goldsmith would give the depositor a receipt for the gold deposited. Ere long some ingenious depositor, finding it necessary to make a payment in a business transaction, took his creditor to the goldsmith's place of business and transferred part of his gold. He received a new receipt reduced by the amount he desired to pay to his creditor. The latter might take the gold or he might leave it with the goldsmith. In this simple and primitive fashion arose the plan of deposits in banks and the payment of debts by checks.

At first the goldsmith was expected to return the identical gold coins which were left with him, but he soon discovered that not all of his customers came to get their deposits at the same time. It became possible for the goldsmith, the original banker, to loan temporarily for a fee—interest—a portion of the amount left with him for safe keeping by business men and others. If one of the depositors came in and asked for his gold, the goldsmith paid him out of the store on hand, but no longer paid back the exact coins deposited in his strong box. Originally this was an irregular practice of doubtful character, but it has become the regular and expected practice. A bank never keeps on hand cash equal to the amount of its deposits.

The Balance Sheet of a Bank. Banks are organized as corporations. Their charters are granted under special safeguards not thrown around industrial corporations. National banks are chartered by the federal government. Others, called state banks, are chartered by state authorities. National banks, and state banks also, are subject to official inspection and are required to make periodical reports as to their business. Banks are not allowed to water their stock. One hundred dollars must be paid in for every one hundred dollar share. Banks are required to build up a considerable surplus. On the following page is a simplified balance sheet of a small state bank. This balance sheet is similar in form and content to that of a corporation engaged in the manufacture of some commodity.[1]

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[1] Refer to page 144.

RESOURCES		LIABILITIES	
Loans and discounts	$457,499.33	Capital stock	$100,000.00
U. S. bonds, etc.	256,580.88	Surplus and undivided profits	95,995.70
Bank building and fixtures	50,000.00	Deposits	589,939.10
Cash on hand and in banks	96,854.59	Bills payable	75,000.00
Total	$860,934.80		$860,934.80

The loans and discounts consist chiefly of notes and acceptances due from individuals and firms to the bank. These are usually short-time paper running from 30 to 90 or 120 days. The deposits are owed by the banks to their depositors; the bills payable are due to outside parties. The capital stock and surplus and undivided profits are the stockholders' financial interest in the bank.

The Bank's Business. With this simplified balance sheet before us, let us study the way in which a bank actually manufactures credit. Suppose a local merchant wishes to borrow in order to buy a new stock of goods for his store. By borrowing at the bank he is able to obtain a discount for cash payments. This firm, it is assumed, has been doing business with the bank and carries a deposit there. The officials of the bank have intimate knowledge of the firm's business. They know the firm is making profits and is doing an excellent business. The merchant explains the reason for wishing this particular loan. He expects to be able to dispose of the purchase under consideration within ninety days. The bank is willing to lend $10,000 to the merchant for 90 days at an interest rate of 6 per cent. A note for that amount and duration is signed by the merchant payable to the bank. The merchant does not ordinarily desire cash; he wishes the amount he has borrowed added to his deposit so that he can draw a check upon it payable to the firm from which he is buying the merchandise. Usually the bank deducts the interest at the beginning of the transaction; therefore, the bank adds to the merchant's account or deposit $10,000 minus 6 per cent interest for 90 days, which is $150; or $9,850 is added to the deposit of the merchant. The $150 is profit for the bank and is added to the surplus and undivided profits. The following changes must now be made in the balance sheet: on the side of resources, $10,000 is added to the loans and discounts; on the side of liabilities, $9,850 is added to deposits and $150 to undivided profits. In this fashion, the bank has changed the small firm's credit into generally accepted bank credit. In early days before the check was used as a means of payment, the bank would have issued paper money for the note and the debt would have been paid with bank notes.

A commercial bank is daily making such transactions, and each day notes which come due are being paid. This brief statement paints a picture of the normal processes of a commercial bank. The bank must keep a reasonable amount of cash on hand to meet the requirements of the depositors who may demand cash. This is technically called the bank's reserve. Banking laws fix a minimum percentage of reserve (cash) in relation to the deposits. Depositors increase their deposits by making deposits of cash or of checks, or by borrowing from the bank. Depositors reduce their deposits by drawing checks upon the deposits or by drawing out cash.

Credit Instruments. Notes, checks, and trade and bank acceptances are the chief forms of credit instruments used in connection with short-time loans made by commercial banks. A promissory note is a promise to pay at a future date for value received, a certain sum of money. A note is ordinarily negotiable; it may by endorsement be made payable to a third party. The great bulk of the "loans and discounts" of a bank consists of notes. A check is an order to pay. The drawer authorizes the bank in which he has a deposit to pay a sum of money to a third party named on the face of the check. Checks may be drawn payable to self or to cash, in which case, unless endorsed to a third party, the drawer receives cash for the check at the bank. When the bank pays a check, the amount called for is deducted from the deposit of the drawer.

Acceptances are also orders to pay. A manufacturer may buy raw materials for his plant. Instead of paying cash, he may be carried on the books of the selling concern for a period, or a trade acceptance may be used. In case the latter method is employed, the seller draws the acceptance ordering the buyer to pay the drawer or order, because of a purchase of merchandise, the sum due at some future date, usually not more than ninety days from date. This order is sent to the buyer; he writes *accepted* across the face and signs underneath. The acceptance is returned to the seller, who is the drawer of the acceptance. He may keep it as a current asset of the business until paid, or, if he wishes money at an earlier date, he may take it to his bank. After the drawer has endorsed the acceptance, the bank will discount it exactly as a note of the seller and endorser would be discounted. If the purchaser and acceptor does not pay when the acceptance is due, the seller and endorser is held responsible by the bank. A bank acceptance is one in which the acceptor is a bank. If the buyer is practically unknown to the seller, the latter may refuse a trade acceptance. Consequently the buyer may go to his bank and furnish acceptable security, after which his bank may agree to accept an order drawn upon it for the amount of the purchase. When due, the bank is primarily responsible for the payment.

National Banking System. Our system of national banks traces its origin to the exigencies of the Civil War period. Before that eventful epoch banks were incorporated under state authority. These banks were in many cases badly organized. Their paper money and credit were of uncertain value. Early in the history of the nation two attempts to put banking on a firm foundation were made by the federal government. The first United States Bank, 1791–1811, and the second United States Bank, 1816–1836, were organized to act as the fiscal agents of the federal government and to place a restraining influence upon the reckless state banks. There was much opposition to banks during the pre-Civil War period. The opposition which in more recent years has been manifested toward trusts as monopolies was then directed toward banks and the "money monopoly."

The National Banking System was organized in 1863 in order to assist in financing the War. Two specific purposes were in the minds of the advocates of this plan. It would provide a safe and reasonably stable currency and it would provide a market for federal bonds. Presently the state banks which continued to do business alongside the many national banks were taxed 10 per cent upon issues of paper money. This federal tax was prohibitive, and the state banks stopped issuing paper money. Before the establishment of the federal reserve banks the only bank notes in circulation were national bank notes. The national banking system was decentralized. One national bank was independent of any other bank. It was not allowed until recently to have branches. These banks were regulated and periodically inspected by officials of the Treasury Department. A rigid reserve ratio was fixed by law and the issuance of paper was carefully safeguarded.

The national banks were required to buy certain amounts of government bonds. These could be issued as the basis of bank-note circulation. If a national bank issued $100,000 of bank notes, it was required to deposit bonds whose par value was $100,000 and an additional 5 per cent of the amount in cash in the Treasury of the United States. It would then be furnished with bank notes printed and engraved by the Department to the amount of $100,000.[1] National bank notes were in this fashion made secure. A national bank might fail and its depositors lose, but the holder of its bank notes was protected. However, the total amount of these bank notes in circulation did not change much from month to month or from season to season. They were relatively inelastic. This inelasticity of the paper money issued by national banks was one weakness of the system.

Another and more important difficulty grew out of the rigid reserve requirements. When the deposits of a bank increased, it was necessary to increase the cash reserves of the bank. If unusual demands were made, a bank, or many banks, might reach the reserve limit. In that case a bank must refuse to lend even though the security offered be good. The reserve limit became a dead line. As a consequence, periodically money and credit stringencies arose. Under the national banking system before the Federal Reserve System was adopted, bank credit was quite inelastic. This two-sided matter of inelasticity was the great weakness of the old national banking system.

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[1] Provided bonds were not selling below par. Bonds eligible for bank-note security have not fallen below par in many years. Liberty and Victory Bonds may not be used as a basis for bank-note circulation.

The Federal Reserve Banking Plan. The Federal Reserve Banking System was put into operation in 1914. It did not do away with the national banks; it was added to the older system. The plan is a compromise between the old, decentralized national banking system and a powerful central bank with branches scattered throughout the nation. There are twelve federal reserve banks located in as many districts. All national banks must own stock in the reserve bank of the district in which they are located. All the legal reserves of the member banks must be kept in the federal reserve banks. State banks may become members of the system. Three of the nine directors of each federal reserve bank are selected by the Federal Reserve Board located at Washington. This board possesses other important regulatory powers. It consists of eight members—the Secretary of the Treasury, the Comptroller of the Currency, and six appointive members.

The chief benefits resulting from the new plan are: (1) it gives some elasticity to the bank-note circulation, (2) elasticity has been provided for bank credit, (3) in times of emergency, coöperation between banks is definitely provided for, and (4) bank clearings are handled more systematically.

Elasticity to the circulating medium is imparted through the issue of a new form of paper money, the federal reserve note. These bank notes are issued only by the federal reserve banks. They are secured by 100 per cent short-time commercial paper, by 40 per cent gold reserve in the federal reserve bank, and the credit of the federal reserve bank issuing the note. These notes are amply secured. If a member bank wishes to obtain more currency, it will send some of its good short-time commercial paper to the federal reserve bank for rediscount. This commercial paper is held by one of the board of directors acting as the agent for the government. Federal reserve notes to the value of the rediscounted notes are sent to the bank. In this way additions are made to the circulating medium. When the short-time paper is due, if the demand for money in circulation has eased, reserve notes may be sent in payment—thus taking them out of circulation. One other method of taking the federal reserve notes out of circulation is provided for. If a note issued by one of the federal reserve banks reaches any one of the other eleven banks, the notes are returned to the bank of issue. The increasing use of checks to make payments is reducing the importance of elasticity in the issue of paper money.

It was pointed out in a preceding section that under the old national banking system the reserve limit became a dead line. This difficulty was overcome by providing for the rediscounting of good commercial paper by a federal reserve bank. If a member bank, whose legal reserves, it will be recalled, are in the federal reserve bank, has increased its deposits until the legal limit of reserves is approached, it may send some of the notes held among its loans and discounts to the reserve bank for rediscount. The sum due the bank because of the surrender of the notes is added to the legal reserves of the bank. It is now able to make more loans and, as a result of loaning, to increase its deposits several times the increase in reserves. The legal reserves of a member bank are 13 per cent in "central reserve cities," 10 per cent in "reserve cities," and 7 per cent elsewhere. In a reserve city, such as Cleveland, a bank could increase its deposits ten times the proceeds of the rediscounted notes; in smaller cities and towns the increase could be as much as fourteen times. In this manner a considerable degree of elasticity is imparted to bank credit. The federal reserve banks must keep a gold reserve of 35 per cent against the deposits of member banks. In times of stress this percentage may be lowered.

The process of rediscounting is simple. The note which was originally payable to the bank is now endorsed by the bank and made payable to the federal reserve bank. The interest or discount for the period remaining before due is subtracted from the face of the note and the bank is credited with the remainder. When the note is due, the face value is collected by the member bank and the amount forwarded to the federal reserve bank. In times of emergency commercial paper may, if necessary, be re-rediscounted between federal reserve banks and the entire gold reserves of the Federal Reserve Banking System mobilized to sustain the credit of the banks considered as a unified group.

Bank Clearings. The extensive use of checks in making payments necessitates the development of a mechanism for easily and regularly routing checks to the bank on which they are drawn. If there is only one bank in a town and all the business men of the town have deposits in the bank, checks are "cleared" easily. A draws a check in favor of B. B deposits it in the bank. The total of deposits in the bank remains unchanged, but A's deposit is reduced by the amount which the check calls for, and B's deposit is augmented by the same amount. If there are two banks in the town, A may have a deposit in one bank and B in the other. B will deposit the check in his bank and his deposit will be increased by that amount. B's bank now has an order calling for payment from A's bank. A messenger may take the check to A's bank and get cash for it. In actual practice, however, at the end of a day A's bank would have several checks deposited calling for payment from the other bank; and B's bank likewise would have several drawn upon A's bank. These may nearly cancel so that little money need actually be transferred from one bank to another. Below is given a simple example of the operation of a clearing house in a town having four banks. The clearing house is merely a place where representatives of the different banks meet to exchange checks; it is not a profit-making institution. The four banks may be designated as A, B, C, and D. During a given day it may be assumed that:

Checks are received by

A		B		C		D	
On B	$1,000	On A	$1,200	On A	$1,400	On A	$1,500
C	1,500	C	1,000	B	800	B	1,700
D	2,000	D	1,500	D	1,200	C	1,300
	$4,500		$3,700		$3,400		$4,500

Checks on the bank below in other banks:

A	B	C	D
$1,200	$1,000	$1,500	$2,000
1,400	800	1,000	1,500
1,500	1,700	1,300	1,200
$4,100	$3,500	$3,800	$4,700

In this case bank C owes the clearing house $400, and bank D owes $200, while bank A must be paid $400 and bank B, $200. With this exchange of cash all accounts between the banks are settled or cleared. In many cases settlement may be made only once a week. Perhaps tomorrow banks C and D might be the ones to receive payments. It will also be noticed that the total deposits in the four banks are unchanged by this process. Out-of-town checks are cleared through the federal reserve bank of the district. It will be remembered that each member bank keeps a deposit in the federal reserve bank of its district. Clearings between two federal reserve banks are settled by means of a fund deposited by each of the twelve banks in the United States Treasury at Washington.

Savings Banks. A savings bank is in reality not a bank. It is an agency for uniting and investing the savings of many persons. Interest is paid upon deposits which are left with the bank for a period of six months or more. These collected savings are invested by the officials of the savings bank in high-grade securities bearing a somewhat higher rate of interest than is paid to the depositors. In the East savings banks are as a rule mutual companies. The profits belong to the depositors. In other parts of the United States the savings bank is organized as a corporation of the usual type and the profits go to the stockholders of the bank. Many commercial banks and trust companies have savings departments.

The Trust Company. The trust company applies the department store idea to financial institutions. The early trust companies were organized as insurance companies and as trustees for estates and individuals. Nearly all of the insurance business has been lost to the regular insurance companies, but the trust company has steadily developed in the field of banking. Today a trust company acts as a commercial bank; it has an investment banking department; it acts as a trustee for estates, as guardian for minors and defectives, as a receiver, and in many other fiduciary capacities; it operates a savings bank; and it provides safe deposit vaults for securities and other valuable personal property. Nearly all of the larger banking institutions are actually, if not in name, trust companies.

Federal Land Banks. The commercial bank, interested in short-time loans, has not been able to help the farmer desiring long-time loans. In 1916 a federal act was passed providing for twelve Federal Land Banks in as many districts, to be supervised by a Federal Farm Loan Board. The machinery was provided for making long-time loans on farm mortgages at reasonable interest rates. In 1923 legislation was enacted making provision for loans to farmers for periods ranging from six months to three years. The Federal Reserve Bank Act was also amended so as to facilitate the making of loans to farmers by national banks. These measures were intended to help the farmers in marketing their crops and live stock.

QUESTIONS

1. The bank is a manufactory of credit. Explain.
2. Obtain a bank statement. Discuss.
3. A bank may owe its depositors ten times the amount of cash in its reserves. Is it safe for a bank to do so?
4. What are the chief advantages in the use of checks?
5. What are the functions of a clearing house?

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CHAPTER XIX

INVESTMENTS

The Field of Investment. The field of investment has expanded enormously in recent years. The success of many enterprises depends upon the sale from time to time of securities. A half century ago corporations were relatively few and small and their bonds and stocks were in the hands of a comparatively small group. Today the amount invested in bonds, mortgages, and corporation stocks is enormous and the number of investors is a host. Many a corporation today is owned by thousands of stockholders. With the encouraging increase in our per capita productivity comes the possibility of large savings, and, therefore, large sums are now seeking safe investment opportunities and speculative openings as well. This may be an era of great spending, but it is also notable as one in which many are striving to obtain a competence through investment. Stock-market news often gets on the front page of the daily newspaper. It competes with the sporting page and the comics for the first place in the interest of the multitude. Investment banking houses now carry on active selling campaigns, and corporations sell stock to employees and to customers on the installment plan.

The movement for wider distribution of investment securities began with the Liberty and Victory Bond campaigns of the Great War period. The increase in the number of persons interested in investment and in speculative issues has also its unfortunate side. It has been estimated that $500,000,000 is lost annually in worthless securities that are issued for fraudulent purposes. As much more is lost through ignorance leading to ill-advised projects.

Investment and Speculation. Through savings and investment industries obtain capital for buildings, equipment, and working capital. Savings and investment are essential factors in the growth of industry. Speculation is concerned with the rise and fall of the market prices of securities and commodities. To draw a sharp line of demarcation between investment and speculation is impossible. No investment is absolutely stable and safe. In speculation the purchaser of financial securities is interested primarily in a rise in the market price of the securities purchased rather than in the amount and certainty of income to be received. The speculator is looking to profits; the investor to steady income. The speculator may range over a wide field, but the investor is confined to a relatively narrow field of seasoned securities in stable industries with an excellent record of profitable business, and to certain governmental obligations.

Bonds legally represent a creditor element. A specified rate of interest is paid and the principal is to be returned at a specified future date. The bondholder has a prior claim to the stockholder, whether preferred or common. If the interest is not paid when due, the bondholders may resort to the courts and force the company into the hands of a receiver. The same may be done if the principal is not paid when due. When a receiver is appointed by the court, the stockholders temporarily or permanently lose control of the business. There are many varieties of bonds issued by corporations. A mortgage bond has as its security a prior claim to certain specified properties of the corporation. A debenture bond is merely a claim to the income of the company. The owner of a debenture bond cannot lay claim to any specific piece of property, but he has priority of rights over stockholders. Stockholders have a claim upon the income of the company subsequent to bondholders. Stockholders cannot demand a receiver in case dividends are not paid. They are legally owners of the business and therefore residual claimants upon the income of the business. Dividends are paid only when the board of directors declares them. Certain commercial creditors who have furnished labor, materials, or stock have claims upon the current assets of the business prior to all claimants, including bondholders, but the holders of mortgage bonds ordinarily have first claim upon the property or the fixed capital In a growing and profitable business the common stockholders may receive considerable dividends and the earned surplus may also be increased. This adds to the equity of the stockholders in the business, but bondholders will continue to receive the same rate of interest and the principal of the bond will be unchanged. It will, however, tend to make the principal more secure.

The Tests of the Good Investment. The yardsticks which may be used to measure the desirability of a particular security are many. The two of prime importance are security of principal and certainty of a reasonable income. No investment is absolutely safe in regard to these two items. A bond of the United States Government is probably the best investment which a person may make as far as security of principal and income are concerned, but the rate of interest will be low. Comparatively high rates of interest or return upon an investment are indications that the security of income or principal may be called in question. In the case of corporation stocks there is no definite date for retirement as in the case of nearly all bonds; the investor can get his money only by selling out at the market price to some other investor. It is desirable that the security be readily marketable. Stocks and bonds listed on a large stock exchange can be sold much more readily as a rule than those which are not listed. The bonds and stocks of large corporations are usually readily marketable. Real estate mortgages and the securities of small businesses are not as readily sold. Security yield and marketability are important in the evaluating of a prospective investment.

The investments of an individual should be diversified among different industries and localities. It is a serious mistake as a rule for the small investor "to put all of his eggs in one basket." A depression in one industry or locality will not seriously affect the market prices of the diversified holdings. Insurance companies, savings banks, and other institutional investors should also diversify their investments. If the purchasing power of money changes, the significance of the principal of a bond, of life insurance, or of a savings deposit may greatly change. In a period of fluctuating price levels the owner of bonds may perforce become a speculator. If a safe bond for $1000 payable in lawful money ten years later is purchased, for ten years interest will be paid regularly, and at the end of the period the $1000 will be returned to the investor. Suppose, however, that during the decade in question the price level for commodities has risen 20 per cent. The purchasing power of the dollar will have fallen correspondingly. When the bond is due, it will take, according to this hypothesis, $1.20 to buy what $1.00 purchased when the investment was made. The actual value of the principal of the bond has been reduced. This would be true likewise of an investment in life insurance or in a savings bank. The number of dollars promised would be returned, but the dollar would have depreciated in purchasing power. If prices are falling and the value of money appreciating, the reverse phenomenon takes place. The investor will gain in purchasing power of the principal. His debtor will lose. The buyer of a "gilt-edged" bond, the purchaser of life insurance, or the depositor in a savings bank may see the actual purchasing power of his principal and interest fluctuate while the number of dollars received is in exact accord with the terms of the original contract. Money income may remain stable, but real income in the terms of necessities, comforts, and luxuries may fluctuate greatly. In a period of unstable monetary standards the owner of the stocks of certain well-established industries may actually be a speculator in a lesser degree than one who invests in sound bonds calling for payment in a fluctuating monetary unit.

Investment Banking. An investment banking house markets securities. A corporation organized for the purpose of operating a railway or a steel fabricating plant is not well prepared to market its own securities. When a railway wishes to sell bonds for the purpose of securing funds to build another track or add to its terminal facilities, an investment banking house will carefully investigate the proposition. If it is considered to be sound, the house, or a syndicate of investment firms, will buy the bonds. The railway will, therefore, be assured of the money. The investment bankers will endeavor to sell the bonds to their clients—individuals, insurance companies, savings banks, or other institutions having funds to invest. If the banking house cannot sell all of the bonds, it usually uses them as collateral at a commercial bank upon which to borrow a large fraction of the face value of the bonds. A high-grade investment banking house is careful to sell only excellent securities. It makes a profit by buying at from one to five or more points lower than the price at which the security is sold to its customers. For example, the investment bank may pay the railway $97 for every $100 bond, and in turn sell the bond at par. Insurance companies, savings banks, and institutions having large endowments are among the most important investors in good corporation and government securities. One large life insurance company has about 40 per cent of its investments in government, railway, and public utility bonds, and practically the same amount in land mortgages.

Investment Trusts. The investment trust is primarily a device by means of which the investor may actually diversify his investment while buying directly only one type of security. In a sound investment trust the investor's risk will be distributed by experts. In the United States the investment trust is of recent development. At least four forms or classes may be distinguished: fixed, general management, specialized management, and financial holding companies. The success of all except the fixed trust depends largely upon management. In the fixed trusts a definite list of securities, usually of long-established and well-known companies, is selected. The investor in the securities issued by the fixed investment trust becomes a part owner of this list of securities. It is ordinarily difficult to change the list of securities as conditions change. No discretion is given to the managers. The interest and dividends received from the securities held in the portfolio of the trust are divided among the holders of the securities in turn issued by the investment trust.

In the general management trust the managers are given discretionary power to buy and sell securities as changing conditions may warrant. In the specialized management trust the managers are limited to certain kinds of securities in making selections. Some management trusts aim to increase their earnings through buying and selling securities and through the rehabilitation of certain corporations whose securities have been purchased by the investment trust. The financial holding company stands midway between the investment trust and the holding corporation. It frequently exercises a large element of control over the companies in which large blocks of securities are held. It is clear that the management form of investment trust may also do likewise. Investment trusts may retain a staff of management advisors. Indeed, the American investment trust may become a controlling factor in many businesses. Scattered stockholders have little influence, but an investment trust may own and vote a large block of stock. Its representatives may attend stockholders' meetings and exercise a controlling influence in the decisions as to business policies.

Hints to Investors. One of the most authoritative textbooks on investment opens with the recommendation "that the investor first and last seek the advice of an investment banking house." The writer might with propriety have added, "or of a reliable investment counselor, who has information as to investment possibilities rather than stocks or bonds to sell." The intelligent investor will study the balance sheets and income accounts of the corporations he is considering over a term of years covering a period of depression as well as of prosperity. The typical investor should not "put all of his eggs into one basket"; he cannot watch the basket carefully. He should practice diversification: (1) divide between seasoned stocks and bonds, (2) diversify with regard to types of industry—railways, public utilities, industrials, etc., (3) scatter as to geographical location. The business man and the young man may safely be advised to put a small fraction of his funds into speculative ventures, but the man who has retired or who has passed middle age should avoid speculative issues. He cannot afford to take extraordinary chances of losing his principal.

Each year millions of dollars are wasted on fraudulent and worthless securities. The reckless promoter and the unscrupulous salesman of securities take advantage of the very common itch to get rich quickly and without work. The glib seller of securities will point out that the Ford Motor Company and others have made fabulous sums. You are told that an opportunity is being offered to get in "on the ground floor." Presumably you will reap large returns. Haste is usually emphasized in such cases. Avoid all plausible schemes of this type unless you have money to throw away. Another method of approach is through the mails. If your name gets on "the sucker list," you will be bombarded with letters and circulars offering marvelous opportunities to obtain unusual profits. The wastebasket is the proper receptacle for most of this literature. "Investment pitfalls" are a multitude. It is as difficult a task to invest your savings in good securities as it is to earn the money.

The Stock Market. A stock exchange is fundamentally a market place for the purchase and sale of securities, chiefly the stocks and bonds of corporations. The New York Stock Exchange is the most important stock market in the United States, but there are many others in the country. For five or six millions of shares of stock to be bought and sold on the New York Stock Exchange in one day is no longer unusual. In addition there is a large sale of bonds. In the week of June 7 to 13, 1930, 44,100 shares of the Missouri, Kansas, and Texas railway, 39,300 shares of the Pennsylvania railway, 356,300 shares of the Consolidated Gas Company, 431,000 shares of International Nickel of Canada, 526,400 shares of the United States Steel Corporation, common stock, and 591,800 shares of Warner Brothers Pictures Corporation were sold on the New York Exchange. The membership of a stock exchange is limited; only those having seats can buy or sell on the floor of the exchange. In 1926 a seat on the New York Stock Exchange was sold for $185,000; since that date other seats have been disposed of at much higher prices. A purchaser must be satisfactory to the Committee on Admissions.

Before the stocks or bonds of a given corporation can be sold on an exchange, they must be listed. While listing does not guarantee that a security is not extremely speculative, it does eliminate issues which are fraudulent or illegal. Securities of an insolvent concern or of one which is not a substantial going concern will not be listed on the New York Stock Exchange. The listing committee requires much information of the corporation whose stock is presented for listing.

An individual who wishes to buy or sell listed stocks or bonds authorizes a broker to buy or sell a certain number of shares at market or at a particular price. If the broker has a seat on the exchange, he offers the stock directly on the exchange. If not, he does so through a broker who has a seat. A slight fee is charged for buying and selling securities. The broker merely acts as an agent. After the stock is sold, the certificate is endorsed by the owner, and it is sent to the transfer agent and the registrar of the corporation. These officials cancel the old certificate and issue a new one in the name of the purchaser. The price of the common stock of a corporation frequently fluctuates several points in a given day. Over a year the fluctuations may be extreme in the case of speculative stocks.

The speculators in stocks do not as a rule buy the shares outright. They buy on the "margin" or sell "short."[1] Speculators who expect and desire stock prices to rise are called "bulls"; those who have sold short and who wish stock prices to fall are "bears." Almost any daily newspaper will give the quotations of the opening, highest, lowest, and closing prices of the stock of a large number of railway and industrial corporations. Since the recent increase in the number of purchasers of corporation stock, stock market reports and financial news have become important items in the daily grist of the newspaper.

QUESTIONS

1. Distinguish between investment and speculation.
2. What is an ideal investment? Why? For every person?
3. What are some "investment pitfalls"?
4. What is the difference between an investment banking house and an investment counselor?

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[1] For an explanation of these practices, see Dice, C. A., *The Stock Market.*

CHAPTER XX

TRANSPORTATION

Transportation and Progress. The unusual and strange have a glamor about them that is fascinating to young and old, but, though much more important, we often neglect the common and familiar. The established methods of transportation and communication ranging from the animal and tribal trails up through a bewildering and interesting variety of paths and conveyances to the modern railway, the palatial ocean liner, and the telephone, telegraph, and radio systems of today are worthy of careful study by all interested in economic and social problems. In the United States people are so familiar with the modern means of communication that only in a time of stress and breakdown is the public gaze directed toward the functioning and the importance of transportation and communication. The airship and the racing motor car attract more attention than the humble freight car, the tramp steamer, and the motor truck, but modern and ancient civilizations are built upon roads and transportation facilities. Tell the student of history or of social and economic problems about the means of communication of a people, and he will be able to describe the character of that people and determine the general outline of its economic and social institutions. The dark continents, places, and ages are characterized by poor roads, by isolation, and by crude means of transportation.

Transportation is an important element in the development of nation- and world-wide markets, extensive trade, and large-scale specialized industry. Today, in direct contrast to ancient and medieval times, a considerable fraction of the world's work consists in picking up materials and products, carrying them varying distances, in a bewildering variety of ways, and then putting them down in a new location. Transportation lines are indeed the arteries through which flow the lifeblood of the business world. Cripple transportation facilities, and business is at a standstill while the inhabitants of this highly specialized and interdependent world suffer. The large manufacturing center is dependent upon far-distant places for necessities, comforts, and luxuries. No place lives unto itself.

The political and social effects of improved means of transportation and communication are also very significant. Effective governmental control can only be extended so far as reasonably good transportation facilities reach. The United States was able to extend from the Atlantic to the Pacific because its expansion came after the opening of the canal and railway era. Europe, with its discordant collection of small and independent sovereignties, developed during the "wagon-road" epoch. National prejudices nurtured through centuries are now difficult to overcome and inhibit and are potent forces opposing the growing pressure of economic internationalism. Modern people are literally united by lines of transportation and communication. The local market of the ancient and medieval world has been in no small measure displaced by national and world markets. The price of wheat and cotton is determined by world supply and world demand. Chicago beef is sold in the Orient, and American locomotives are used on Japanese railways. At the heart of this vast business maze may be discerned the transportation system. Regular, safe, and rapid transportation and communication are basic elements in the modern business and political world. Interstate and international trade, minute division of labor, world markets, giant business corporations, great national states, the daily newspaper—all are the fruitage of the railway, the steamship, the telegraph, the telephone, the cable, and the radio. The idea of a world League of Nations could not emerge into clear relief until after the continents had been moored together and until the size of the globe had been greatly reduced when measured in transportation time. Isolation, political and social as well as industrial, is now almost a matter of historical significance only. Outside the region immediately surrounding the North Pole and the South Pole, the merchant and the transporter are almost omnipresent.

The history of America in may respects traces within the compass of a few centuries the general outlines of the course of world history. In studying the history of transportation, the student is able to discern the same general trend of affairs in the United States as in the Old World. The earlier trails in the American wilderness were those made by animals. The buffalo was a great trail maker. The American Indian often used the buffalo trail, and later white explorers, military expeditions, and surveyors found the long trails made according to the instinctive promptings of the buffalo the best routes into the interior of the great continent. In this way was "blazed the way for the railways to the Pacific." As the frontier stage began to pass, trails were gradually replaced by bad roads, and later bad roads by better ones, and the waterways commenced to serve as commercial highways.

The "turnpike" road period began in 1790. These roads were marked improvements over the early roads cared for, or neglected, by the local governmental units. In spite of the high tolls charged on the turnpikes, the cost of transportation was reduced. The original turnpikes were built by private companies; state aid was given in some cases. The famous Cumberland road was built by the federal government. In bad weather a stagecoach journey was slow, difficult, and even dangerous. Before the War of the Revolution to go from Boston to New York City by stagecoach, a distance of two hundred and thirty miles, required a week. At the opening of the nineteenth century it consumed five and one-half days to go from Philadelphia to Pittsburgh, a distance of three hundred and ten miles. Road freighters made slower time.

The changes in the Middle West, as the trail was replaced by the wagon road and the pack-horse by the stagecoach and the freighter, were fraught with important social and economic consequences. The development of the new method of transportation by stagecoach and freight wagon was vigorously opposed by the pack-horse men. "Strong-arm" methods were occasionally resorted to. Coaches were attacked and overturned, harnesses were cut, and passengers and drivers harshly treated. "The pack-horsemen argued that the mail could not be carried so rapidly in coaches; that the introduction of the stagecoach would throw hundreds out of employment; that the American horse was not strong enough to draw the heavy coach and wagon loads." Inevitably, however, the new and more effective method won the fight and held the center of the stage until displaced by the canal, the steamboat, and the railway.

The stagecoach era was an interesting epoch in the history of the Middle West. The Cumberland Road probably presented its highest and best type. Over this great national highway moved the covered wagon of the westward moving pioneer, the stagecoach, the freight wagon, herds of cattle, and flocks of sheep. Along the route at intervals were the taverns and wagon-houses. Coach lines competed with one another for passengers and freight. Rate wars like those of early railway days occurred from time to time. The coaches were long awkward affairs. Ordinarily there were three seats inside, each seating three persons. One additional passenger could sit outside with the driver. The road freighter was a huge wagon with wheels having broad rims or tires. The top was usually covered with canvas. The teamsters driving the freighters "put up" at inns called wagon-houses where cheaper accommodations were provided than at the taverns. Many picturesque taverns dotted the roadside. With the coming of the railway the stagecoach and the tavern were quickly displaced, but the advent of the automobile and the building of improved national highways are bringing into being a new era in road life. An era of canal building followed the opening of the Erie Canal in 1825. This canal connected Buffalo and the Great Lakes with Albany, New York City, and the Atlantic Ocean. The railway, however, soon put an end to the craze for building canals.

Growth and Importance of the American Railway Industry. The first American railways were short, independent lines. The gauge of different roads varied considerably. Until a standard gauge was adopted, it was impossible for cars to be transferred from one line to another. The first railways were expected to act as feeders for canals; it was not anticipated that the canals would soon be in a secondary position. The pioneer American railway was the Baltimore and Ohio which has recently celebrated its centenary. Construction work began in 1828; by 1830 thirteen miles was completed. Previous to consolidation in 1853 there were ten or eleven independent lines of railway between Albany and Buffalo. The early railways met with much opposition, as does nearly every innovation which threatens the "good old ways." It was asserted that many physical evils would follow from traveling at the excessively rapid rate of thirty miles per hour. The tavern keepers on the turnpike roads, the turnpike companies, the owners of stage lines, and wagoners who hauled over the roads were all bitterly opposed to the railway. However, in spite of opposition railways developed rapidly.

In 1860 the total railway mileage was over 30,000. In 1869 the first transcontinental line was completed. In the twenty-year period from 1860 to 1880 the railway mileage in the United States was multiplied three times. In 1910 it was approximately 240,000, and the railway network was practically complete. At present the total railway mileage is about 260,000. This is greater than the mileage of all European railways and is approximately one-third of the total world mileage. The valuation of the American railways is approximately $20,000,000,000. It is estimated that the railways employ at least one out of every fifty-two persons in this country.

Rate-Making Problems. Rate making is the heart of the railway problem. The railways are public utilities; they are clearly affected with public interest. Competition does not operate effectively in the case of public utilities to determine the quality and price of the service rendered. The railway is essentially monopolistic; it is now generally accepted that organized society must either regulate or own and operate the railways. The reasons for this attitude toward railways grow out of the peculiar conditions under which the railway operates. Competition between unregulated railways becomes cut-throat and presently leads to pooling or to some other more definite and permanent form of combination. A railway manager in competition with other roads is under peculiar temptations to reach out and take traffic from his competitors. In the early days of American railroading such competition often resulted in personal, place, and commodity discriminations as to rates.

The largest portion of the income of a railway is derived from freight traffic. Passenger, express, and mail service are minor matters from the point of view of income. In order to do business, a railway must first spend large sums of money. A right of way must be bought, tracks must be laid, terminals and depots provided, switches and signaling devices are required, and expensive rolling stock is necessary. The railway usually obtains much of its funds for such purposes by selling bonds. The interest on the bonds and the taxes paid to various governmental units become fixed charges. Many of the expenses of a railway are constant; that is, not changed by slight modifications in the amount of traffic hauled. These expenses are practically constant whether a train is composed of well-laden or empty cars, or whether ten or nine trains are operated in a given period of time.

According to the bookkeeping prescribed by the Interstate Commerce Commission, railway expenses may be classified as follows:

Fixed charges
Operating expenses
  (a) Maintenance of ways and structures
  (b) Maintenance of equipment
  (c) Conducting transportation
  (d) General expenses

Professor W. Z. Ripley divides this grouping of expenses into constant and variable expenses in the following fashion:

	PER CENT OF OPERATING EXPENSES		
	Both	*Constant*	*Variable*
Maintenance of ways and structures	15	10	5
Maintenance of equipment	15	7.5	7.5
Conducting transportation	40	20	20
General expenses	3	3	
Fixed charges	27	27	
	100	67.5	32.5

According to this estimate about two-thirds of the total operating expenses of American railways may be called constant—not affected by slight changes in the amount of traffic. The table below shows that about 55 per cent of the direct expenses of operation (fixed charges omitted) are constant.[1]

	PER CENT OF OPERATING EXPENSES		
	Both	*Constant*	*Variable*
Maintenance of ways and structures	20	13.4	6.6
Maintenance of equipment	20	10	10
Conducting transportation	56	28	28
General expenses	4	4	
	100	55.4	44.6

A business of high fixed expenses is in constant danger of being seriously affected by a decline in demand for the article furnished or the service rendered. The following example of a railway with high fixed charges will show the instability of profits available for dividends. It will be assumed that the road has capital stock equal to $100,000,000.

Gross revenue	$100,000,000
Expenses	
Operating expenses	66,000,000
Fixed charges	28,000,000
Total	$94,000,000
Profits (available for dividends)	$6,000,000

Let it be assumed that there is an increase of 10 per cent in the gross revenue, and that 50 per cent instead of 55.4 per cent of the operating expenses remain constant.

Gross revenue	$110,000,000
Operating expenses	69,300,000
($66,000,000+50% of 10% of $66,000,000)	
Fixed charges	28,000,000
Total	$97,300,000
Profits	$12,700,000

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[1] Other authorities hold that Ripley's percentages for constant costs are too high.

Again, assume a decline of 10 per cent in gross revenues.

Gross revenues	$90,000,000
Operating expenses	62,700,000
($66,000,000 – 50% of 10% of $66,000,000)	
Fixed charges	28,000,000
Total	$90,700,000
Deficit	$700,000

An increase of 10 per cent in the gross revenue doubled the profits, while a decrease of 10 per cent changed a profit of $6,000,000 into a deficit. This example indicates an undesirable feature of a high bonded debt in the case of a railway.

Classification. A railway hauls a bewildering variety of products varying distances and under different conditions—coal, lumber, silk goods, cotton textiles, machinery, iron ore, etc. A considerable portion of railway service is actually furnished at joint cost with the same facilities. Railway companies can ascertain their total expenses without baffling difficulties, but the exact assignment of costs to specific services is difficult. What is the cost of carrying a passenger one mile? How much does it cost to carry a ton of coal or a ton of silk one mile? It should not be overlooked that the same roadbed and other common facilities are used in each case. In the early days of railroading, while roads were seeking more traffic, low rates per ton-mile would frequently be given to certain commodities. If such low rates were not offered, the goods would not be transported excepting for short hauls. If a railway were built and had trains running, the addition of a few cars to an otherwise short freight train would mean slight additional expense. The roadbed and depots were there and the train was going anyway. Railway traffic managers felt that whatever rate this kind of traffic would bear over the added expense was clear gain. As a consequence a variety of ton-mile rates were allowed for the commodities hauled. Some valuable articles were made to pay the added expense of hauling plus more than their share of the constant expenses. On the other hand, certain commodities, such as coal or iron ore, paid ordinarily little more than the variable or added costs due to their haulage. Discrimination between commodities is now called classification and is allowed and regulated by the Interstate Commerce Commission.

In passenger service classification is also present. First-class rates apply to the great bulk of travelers. The Pullman and excess-fare trains, however, reach a class of people whose pocketbooks are fatter than those of the average American. Excursion and immigrant trains and other special low-fare services are intended to reach a group who would not ordinarily travel at the first-class rates. The extra cost of running an excursion train is not excessive. If the train can be loaded with persons who would not have made the trip at ordinary rates, any excess from fares over the extra expenses of the train will be clear gain and likewise may be applied toward paying a portion of the fixed expenses of the road. Under such circumstances passengers paying the regular rates do not seem to have valid reasons for objecting to low rates for excursions.

Personal Discrimination. As has been suggested, the railway is a business of high fixed expenses. Within certain limits an increase in the amount of traffic will allow this overhead expense to be spread over a larger number of traffic units. The traffic manager of an unregulated railway is subjected to temptations which do not greatly affect the manager of a grocery store. The latter has a relatively low fixed expense or overhead cost. To the railway manager additional freight or more passengers spell larger profits because more income is received with little additional total operating expenses. In the early days of railroading, before governmental regulation became reasonably effective, the railway officials offered special favors to large shippers who would send freight over their road instead of over a competing line. This policy in turn would cause the second road to make an effort to recover the lost traffic. This practice, which was known as "rebating," may be called "personal discrimination." Sometimes large shippers took the initiative and threatened to send their shipments over another road unless given substantial rebates. Personal discrimination is illegal under the laws now regulating American railway transportation.

Place Discrimination. Another form of discrimination also appeared early in the history of railway transportation. It is called "place discrimination" and consists in giving more favorable rates to one city or district than to another. Place discrimination is also a direct consequence of high fixed expenses. Consider the case of two cities, A and B, one thousand miles apart, connected by a direct railway line. Assume also that these two cities have the option of sending goods by a water route. A third town, C, is located midway between A and B, but it is not on a water route nor is it served by another railway. Because of water competition certain kinds of freight may be carried from A to B by rail for less than from A to C, one-half the distance and on the railway line. Low through rates must be offered or little freight will be carried from A to B. If little through freight be carried, the road will not be utilized effectively. The traffic density, or the amount of freight carried per mile of line, may be low. The extra expenses of carrying considerable additional through traffic will not be great. If the through freight can be made to pay more than the extra expenses involved, it will help to reduce the amount of fixed charges which must be spread over the remaining traffic. On the other hand, if all freight, local as well as through, were charged the same low distance rates, the fixed charges could not be paid. Under the present law regulating American railways, charging less for a long haul than for a short haul over the same line is forbidden, but a certain amount of place discrimination is allowed by the Interstate Commerce Commission. Cities and districts which have the advantages of water or rail competition are usually given somewhat more favorable rates than those less fortunately situated. In the absence of rate regulation, railway traffic managers have the power to build up or destroy a city or a corporation through the power to lower or raise freight rates. Slight discriminations in rates may spell business success or failure.

Basic freight rates are of two kinds: distance and uniform or postage-stamp rates. Actual rates charged are compromises and partake as a rule in some degree of the characteristics of both types. The general adoption of distance rates would cause a different distribution of industry and of population from that which would result as a consequence of the widespread use of uniform rates. The application of distance rates would tend to reduce or to eliminate the long-distance hauling of cheap and bulky commodities. Manufacturing would spring up wherever power and raw materials were readily obtainable. Unless its advantages in the production of a given article were very marked, no particular district could profitably ship its products long distances to compete with the output of a district near to the markets under consideration. On the other hand, if the postage-stamp system of rate making were generally used, Cleveland could ship its products to a Colorado town as cheaply as could Denver. Under such circumstances a section of the country adapted to the production of a special product would tend to concentrate its efforts upon this commodity. It would be able to compete successfully in distant markets with producers located only a few score of miles from these markets. Postage-stamp rates would cause excessive territorial division of labor, and such rates would lead to an indefinite amount of unnecessary transportation. Theoretically, a fair rate is based upon mileage, or a distance rate modified to meet the exigencies of competition from ocean, lake, river, or canal carriers.

Regulation. Governmental regulation of certain industries especially vital to the public is not confined to recent decades. Inns, cab drivers, toll roads, and bridges have for many generations been subjected to special regulations. Market places and itinerant traders have also been controlled by governmental edicts. Roads, bridges, canals, and finally railways and other recent methods of transportation and communication have been recognized as semi-public instrumentalities. Certain rights of eminent domain are granted. These utilities are held to be appropriate subjects for a higher degree of governmental control than ordinary business in manufacture, mining, farming, or merchandising.

Under the Federal Constitution the regulation of interstate commerce is vested in the federal government, while within-the-state business is left to the state concerned. Since nearly all railways engage in interstate commerce, practically all regulatory measures in regard to railways are now federal. Indeed, the Interstate Commerce Commission can in actual practice regulate intra-state rates. The making of transportation rates and the regulation of railways is a function of the legislative arm of government, but that power may be delegated to a commission. The courts, however, have the power to review upon complaint the orders of the Interstate Commerce Commission. This power is derived from a clause in the Federal Constitution which provides that a person may not be deprived of property "without due process of law." To fix rates excessively low, for example, would practically destroy the value of the property of a railway and would result in virtual confiscation of property.

The first general federal law regulating railways was passed in 1887. It established the regulatory body called the Interstate Commerce Commission. This law has been modified and strengthened several times. The last general act was that of 1920. The Commission has the power to prescribe rates which are fair and not discriminatory. It is also given the authority to determine the classification of freight. A uniform system of bookkeeping is required of the railways. A railway corporation may not issue new securities without the approval of the Interstate Commerce Commission. The Commission has been engaged for several years in making a valuation of the physical assets of the railways. The Commission also possesses many important powers in regard to the control of the services and facilities of the railways. The act of 1920 included a "recapture" clause. If the net operating income of the railway exceeds 6 per cent of the valuation of the property utilized by the railway, one-half of the excess shall be paid into a contingent fund to be used by the government in making loans to roads needing funds.

It has been well said that the right to private property is in reality a bundle of rights. In businesses affected with public interest, especially in the case of railways and public utilities, regulation has gone far. The bundle of rights connected with private ownership has been reduced to a small size. The owners of our railways cannot fix rates or determine the classification of freight; they are obliged to install various safety appliances and furnish certain facilities upon the order of a governmental commission; they may not build a new line or cease operating an old one without special permission; they may have a portion of their net profits "recaptured" or taken from them; they cannot issue new securities until the Interstate Commerce Commission grants permission; and the books of a railway company must be kept in accord with the standards prescribed by the Commission.

Water Transportation. There are four classes, or kinds, of waterways which serve the American people: oceans, the Great Lakes, rivers, and canals. Inland lakes and rivers provided early trade routes. The canal, the railway, and the hard-surfaced road are, with few exceptions as to canals and highways, of comparatively recent origin. The volume of water-borne commerce of the United States in 1925 was about 483,000,000 tons. Of this total less than 100,000,000 tons were carried in overseas trade. Our coastwise and inland water traffic is nearly four times that of our overseas foreign trade. The Great Lakes, rivers, and canals carry a considerable volume of traffic. The rates by water are usually low and certain commodities, such as coal, iron ore, lumber, and wheat, may be carried by the relatively slower water transportation in competition with the railways. Nearly all of the earlier inland canals have fallen into disuse. The Erie Canal, originally completed in 1825, was enlarged during the opening years of the present century, but the traffic has not been as great as anticipated. There are at present two important inland waterway projects under consideration: the Lakes-to-the-Gulf scheme to connect Lake Michigan with the Gulf of Mexico utilizing the Mississippi River and a canal across Illinois, and the Great Lakes-Saint Lawrence River project to connect the Great Lakes and the Atlantic by means of a ship canal. These projects would cost large sums, and the Great Lakes are icebound for about 25 per cent of the year.

The Automobile and Hard-surfaced Roads. The rise of the automobile to a position of major import in the field of transportation has been spectacular. In 1895 four passenger cars were registered in the United States. The opening year (1901) of the twentieth century recorded a registration of only 14,800.

The motor truck made its appearance in 1904. The table below indicates the rocketlike upsweep of the automotive industry.[1]

	REGISTRATION OF PASSENGER CARS	REGISTRATION OF MOTOR TRUCKS
Years	*Number*	*Number*
1905	77,400	600
1910	458,500	10,000
1915	2,309,666	136,000
1920	8,225,859	1,006,082
1925	17,512,638	2,441,709
1929	23,121,589	3,379,854
1930	23,200,000	3,518,000

In 1929 the number of persons employed directly or indirectly in the motor vehicle manufacturing business was estimated to be 4,700,000. The drivers of automobiles have insistently demanded better and better roads. In 1904 the "rural road mileage" of the United States was 2,151,379, of which 153,530 miles were "surfaced." In 1929 the rural road mileage was 3,016,281, of which 660,000 miles, or over one-fifth of the total, were surfaced. In the quarter of a century from 1904 to 1929 over 500,000 miles of rural roads were surfaced. In addition marked progress was made in paving city streets.

Transportation by Air. It is not difficult to become optimistic about new methods of transportation. Extravagant prophecies are being made in the field of aëronautics. However, spectacular progress has been achieved during the last few years in air transportation. Approximately 8,000,000 pounds of air mail were carried in 1930 and about 400,000 passengers were carried in the commercial air service. The railways may soon be forced to meet a new competitor; air transportation is winning a place in the transportation industry. Fog must be overcome before air transportation can become regular and safe along the Great Lakes and in many parts of the country bordering on an ocean.

Future of Railway Transportation. As specialization and complexity grow in industry, transportation becomes a larger and larger factor in business life. The success of "hand-to-mouth" buying with its reduction of inventories to a minimum depends upon the speed and certainty of transportation operations. Delays and tie-ups in transportation are costly and dangerous. It is essential that the shortest possible routes be chosen and that the rapidity of freight movement be increased. Goods in transit or in storage add to the overhead expenses of business. Airplanes, truck and bus transportation may stimulate the railways to improve their service beyond the present level. Door-to-door freight service may be the next step. It would reduce terminal expenses and tend to speed up the movement of freight. Mankind has frequently adopted new means of accomplishing things, but the old instrumentalities are only slowly discarded or are not displaced. The automobile in its various forms has evolved rapidly, but it bids fair to supplement rather than to displace the railway. Freight traffic continues to increase, although passenger traffic by rail has declined somewhat. Indeed, the automotive industry has contributed in a considerable degree to the freight traffic of American railways—gasoline, oil, grease, tires, accessories, steel, lumber, and so on through a long list.

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[1] *Facts and Figures of the Automobile Industry,* 1930. Issued by the National Automobile Chamber of Commerce.

Mr. Leonard Ayres presents statistics showing that from 1906 to 1920 national production and railway freight fluctuated together. An increase or decrease in national production was accompanied by a corresponding increase or decrease in railway freight tonnage. Since 1920 national production has increased at a more rapid pace than railway freight tonnage. "The motor truck is cutting into the railway freight business just as surely, although not as seriously, as the motor car is diminishing the railway passenger business. In both cases it is the short-haul business that is most seriously affected, and in both cases the results are progressive in nature." [1]

American railways have greatly increased in recent years both in the average train load and the average length of a freight train. Grades have been reduced, many curves eliminated, heavier rails have been laid, and the fuel consumption per unit reduced. Using a composite index of thirteen factors, Dr. Parmelee, of the Bureau of Railway Economics, has calculated the rising scale of railway operating efficiency as follows: 1920 to 1924, 100; 1924, 104.8; 1925, 109.4; 1926, 113.5; and 1927, 115.2.[1] According to this method of calculating, the efficiency of railway operations in 1927 was over 15 per cent higher than the average for the years 1920 to 1924—a noteworthy performance.

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[1] *The Cleveland Trust Company Business Bulletin*, May 15, 1930.

QUESTIONS

1. If a railway has its roadbed and equipment and its trains running, what added cost would be incurred if it hauled one additional freight car from Cleveland to Chicago?
2. Would it be good business policy for a railway to haul such a car at a rate but little in excess of this added cost, provided it could get no more for the service?
3. Would it be good business policy to haul all traffic at such rates?

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[1] *Recent Economic Changes*, Vol. I, p. 291.

CHAPTER XXI

PUBLIC UTILITIES

What Are Public Utilities? In a narrow sense public utilities may be restricted to industries providing for cities and towns water, gas, electricity, telephone service, and street railway transportation. The steam railway is a special form of public utility. From this point of view a public utility is an industry producing under conditions of monopoly a service which is almost indispensable to the public; a public utility is granted by governmental authority the right to use the public streets or to exercise the power of eminent domain. Its services are of a public nature—affected with public interest—and are not produced under competitive conditions such as are obtained quite generally in manufacture, farming, mining, and retailing. It is quite clear that one water, gas, or street railway company can supply the needs of the people in one city or section of a city better and more economically than can two or three water, gas, or street railway companies. A public utility is a business of high fixed expenses and is generally operated under conditions of diminishing cost of operation as the volume of the business increases. The telephone seems to be an exception in regard to diminishing cost. The function of a public utility must be performed by governmental agencies or by private agencies authorized by, acting for, and regulated by, public authority.

In short, a public utility is not a purely private business. As in the case of the railways, municipal public utilities are clearly affected with public interest and stand in a peculiarly close relation to governmental agencies. Indeed, a public utility may logically and legally be considered as performing a function of the state. The public grants it certain privileges in regard to the use of streets or strips of land, it is recognized as monopolistic in character, the community is directly dependent upon its efficient and continuous functioning, and its private managers and owners are expected to make only a reasonable return upon the investment. The rapid urbanization of the American people has made the operation and the control of public utilities matters of great public concern.

Growth of Public Utilities in the United States. As manufacturing towns and cities developed and the urbanization of our population began, the need for an organized form of service to furnish water, light, transportation, and communication emerged. The first American water plant was established in Boston in 1652. In the city and town of today comfort, health, cleanliness, fire protection, and recreation require an adequate supply of water. Because the water is used for fire protection as well as for domestic purposes, because the purity of the water supply is essential to health, and because the furnishing of water is relatively simple, a large percentage of American water plants are owned and operated by the local governmental units. New York City and Los Angeles bring water from distant points through aqueducts. In the latter case the aqueduct is approximately 240 miles in length.

Gas was originally used for lighting, but today it has been almost entirely superseded by electricity in that field. The first American gas company was granted a charter by the City of Baltimore in 1816. The early plants for lighting the streets in cities and towns met with much opposition. The escape of gas fumes was feared. To turn darkness into daylight by means of street light was contrary to the plan of the world, and, therefore, sacrilegious. It was also urged that thieves would be encouraged. Because of this opposition, it was for many years exceedingly difficult to obtain the capital necessary to build gas plants. With the introduction of electric lighting gas lighting declined rapidly, but the gas industry expanded through the increased use of gas for the kitchen stove, for heating, and as an industrial fuel. The industrial use of gas gives promise of great expansion in the not distant future. Gas may be manufactured at the mouth of bituminous coal mines and passed long distances to industrial cities and towns.

The electric light and power industry has grown rapidly and constantly until it is now "a giant among the giants." From

1909 to 1927 the private electric light and power industry showed an increase of 300 per cent in the number of persons employed. The foundations upon which the central stations furnishing light and power were built reached back to the pioneer discoveries of such scientists as Faraday, Henry, and Davy in the early part of last century. The arc light was first made commercially feasible by Brush in the seventies. The incandescent light in parallel circuit and the first central stations were developed commercially between 1877 and 1882 by Edison. However, many other scientists and inventors played important rôles in the early history of the electric light and power industries. In 1902 this business had an investment of less than $650,000,000; in 1922, $4,500,000,000; and in 1928, of approximately $9,500,000,000. The output and the size of the generating units had likewise grown with amazing rapidity. Transmission systems are being developed which extend across state lines. The country is in the process of being crisscrossed with high-tension lines, furnishing light and power to industrial plants, for household purposes, for street light, and other purposes. Steam generating units and hydroelectric plants are being united into gigantic systems, and the small isolated generating units are being displaced. The next decade or two will probably see much further expansion. Increased use of the electricity in industrial plants, on farms, in our homes, and for street lighting and advertising purposes may reasonably be anticipated, and progress is being made in electrifying the steam railways.

The possibilities in the further development of a great network of high-pressure electric wires seem enormous. "Giant Power" and "Super-Power" are terms frequently used to describe the future magnitude of the light and power industry. In the words of Robert W. Bruere, "the immediate objective of Giant Power is the conversion of all our primary energy resources into electricity and their pooling into regional systems which will then be integrated into a nation-wide federation of systems." The realization of such a program may lead to a breakdown of the high degree of centralization of industry forced by steam power. The super-power system may bring electricity "to every man's door in any desired quantity, of standard quality, and at prices substantially uniform for each class of service." This power would come from a common reservoir constantly fed by steam and water plants.

The first street-car track was laid in New York City in 1831. Horse-drawn cars were used. The first electric railway system of practical significance is attributed to Sprague who installed it in Richmond, Virginia, in 1888. However, the first practical electric line in America is claimed for Cleveland in 1884. Kansas City, also, in 1884 developed a system using probably for the first time the trolley. In recent years the street railway has faced extraordinary competition in the private automobile, the bus, and the taxicab. It is possible that the increasing traffic congestion in our cities, together with the traffic problems which have arisen, may react favorably for the street railway. The electric interurban railway, which flourished in the opening decade of the century, has in recent years suffered greatly. Many lines have been abandoned.

In March, 1876, Alexander Graham Bell successfully transmitted the human voice over a wire. From that successful experiment of a little over a half century ago has arisen the far-flung telephone industry which literally ties all parts of the nation together. With few exceptions it is now possible for a person in any part of the United States to get into telephonic conversation with another person at any time and anywhere within the borders of the nation. In 1928 the Bell system estimated that 24,000 million calls were originated by its customers. In 1930 there were approximately 20 million telephones in the United States of which about three-fourths were directly controlled by the Bell companies. The American Telephone and Telegraph Company controls the various Bell companies and the Western Electric Company. The stockholders of the corporation numbered approximately 550,000 in 1931. "There are now (January, 1930) approximately 10,000 engineers engaged in the work of the Bell system of which approximately 6,300 are in the operating companies, 2,200 in the headquarters departments, and 1,500 in the Western Electric Company." [1]

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[1] *The Bell System Technical Journal*, January, 1930, p. 7.

Valuation and Rates. In ordinary private business the owners and managers are expected to gain or lose because of management methods, the vicissitudes of business, fluctuations in price levels, and the like. The owners and managers in a competitive business are allowed to absorb such gains and are required to accept such losses as may come in the uncertainties of business. Are the investors and the management in public utilities and railways to be placed in the same class? Competition plays a small rôle in these industries and they are performing a service clearly affected with public interest. The legal and economic theory which is generally accepted is that the owners be allowed a fair rate upon the actual investment and be protected in a large measure from the ordinary vicissitudes, speculative opportunities, and dangers of ordinary business. On the other hand, public utilities should not be allowed to gain monopoly profits. In a competitive business, the value of the investment is in a large measure price-determined, but in one in which prices are regulated by governmental fiat and in which it is assumed that an investor should be allowed a fair rate upon his investment, the value of the property must be used as a basis for the determination of prices. In other words, in competitive industries the investment value of a business is largely determined by net income; in public utilities income is largely determined by valuation. The question of a fair rate upon a fair valuation of property used by a public utility becomes the heart of the problem of regulation. What is a fair rate? What is a fair method of valuing the property used by a public utility?

A fair rate of return practically involves consideration of the returns received in industries in which competitive conditions prevail. Such a rate is made up of at least three factors—interest, payment for management, and an allowance for a risk. The interest rate should be the same as that which obtains in the investment market for long-time and safe investments. The allowance for management would be somewhat more difficult to determine. In public utilities, under regulation, risk would be reduced below that of the average business subjected to competition. One practical way of determining whether the rates are or are not fair would be to note the effect upon the market price of the securities of the utility. If rates are too low, the market price of the securities will fall below the valuation as determined by governmental authorities. If rates are too high, the market price will rise considerably above the valuation figure.

The valuation, or rate-base, problem has two aspects. It may be assumed that the public utilities ought as far as possible to be treated as competitive conditions—if existing—would indicate. On the other hand, the existence of monopoly conditions may be frankly recognized. It is assumed that the question of fair rates and fair returns must be based upon other hypotheses than that of competition. One leads to the theory of reproduction cost as the proper basis of valuation, and the second logically points toward the acceptance of original cost, provided the expenditures were prudently and honestly made. The federal Supreme Court, which has the last word under our constitutional system, seems to favor the reproduction-cost theory. The Interstate Commerce Commission, on the other hand, is inclined toward the original cost theory. Original cost—investment—is a definite fact. Reproduction cost must remain more or less theoretical. It is not an established fact based upon definite evidence. If we accept the view that the railways and the public utilities perform public functions and are, in the main, non-competitive, it appears that we are logically driven to accept original cost, in so far as it can be ascertained. Two modifying elements, perhaps, should be given consideration. Some increase or decrease in returns should be allowed as the general price level rises or falls and the purchasing power of the dollar falls or rises. In the second place, it may be desirable to make allowance for good management. An inefficiently managed plant will show low net returns. In fixing rates and in deciding upon fair returns, it would seem a counsel of wisdom to allow good management to be financially rewarded and bad management to be penalized. Governmental regulation should stimulate and assist the management of utilities in effecting economies and in improving technical methods. At the present, neither basis of valuation has a clear field and formidable arguments may be advanced against either plan.

As long as a public utility does its business within the borders of a state, regulation is a state matter. With the development of interstate business in electric current for lighting and power and the organization of large holding companies controlling operating companies situated in different states, it may be necessary for the federal government to step into the picture. The first state commission with adequate power for regulating public utilities, other than railways, was established in Wisconsin in 1905. At the present time all of the states except Delaware have public service commissions. The powers granted these commissions vary greatly from state to state. In the states having commissions endowed with considerable authority, these bodies are charged with the duty of regulating rates and the quality of the service rendered by public utilities. In the majority of the states the commissioners are appointive officials. The amount of capital invested in the public utilities of the United States, the strength of the corporations regulated, and the vital importance and the variety of the services rendered to the community make the problem of adequate and just regulation difficult of solution. Regulation is still on trial in the United States. If, finally, a verdict of failure is given by public opinion, we shall not return to non-interference policy. In such a contingency the next step will be governmental ownership and operation of utilities. The future of regulation depends largely upon the attitude of the utilities themselves. If the managers and owners of public utilities are content to make and receive reasonable profits and are willing to coöperate with governmental commissions in improving the service, the regulatory difficulties will fade away, but if they strenuously insist upon making large monopoly profits, regulatory bodies will ever be fighting with the managers and owners of the utilities—a situation which makes neither for efficiency nor for fair dealing.

Public Ownership and Operation. The inclusiveness of the term "affected with public interest" as applied to business has increased as density of population and specialization of occupations have become greater. Recent decisions of the Supreme Court of the United States indicate a tendency to curb further attempts at extending the range of industries affected with public interest. That such businesses should be either regulated by governmental authority or placed under governmental ownership and operation is now accepted with a fair degree of unanimity. Proposals to extend further the scope of public regulation or operation into the field of business continues to meet with strenuous and vociferous objections. Expert advice in the realm of science or engineering is usually accepted without bitter opposition, but when the expert invades the field of economics and his advice runs counter to the immediate business interests of individuals and corporations, the expert is frequently assailed vigorously. Facts and investigations in regard to the desirability or undesirability of governmental operation of railways or other public utilities are looked upon through the colored glasses of personal interest. It is practically impossible to obtain as cold, calm, and scientific weighing of evidence in this connection as in the case of the study of stresses and strains in bridge building or in machine design. The interpretations of statistics are twisted consciously or unconsciously by the economic interests involved. The investigator, too frequently, starts with a thesis and weighs the importance of evidence by its effect upon the concept to which he originally gave his allegiance. The scientific attitude is difficult to maintain in any discussion of public ownership and operation of businesses clearly affected with public interest.

There are, however, certain governmental activities which have been carried on for a period of years and which are now almost universally accepted as suitable for public operation. Among these activities are the minting of money; the operation of a postal service; the building and maintenance of roads; the operation of public schools, libraries, playgrounds, the government printing office, and city water works. Few voices are raised demanding the return of these governmental activities into the hands of private business organizations. Proposals looking toward governmental operation of the steam or electric railways, of electric light and power plants, of gas plants, and of the telephone industry are fiercely attacked. These are businesses affected with public interest and operated under conditions approximating monopoly.

Only communists and socialists are seriously arguing that businesses in which competition continues to play an important rôle should be owned and operated by governmental units. The most generally accepted tests of probable fitness for public operation are "monopoly and maturity." According to this point of view, competitive industries and those public utilities in which extensive technical and managerial changes may reasonably be anticipated are not ripe for governmental operation. The relative immaturity of the electric light and power industry as contrasted with a city water plant is one, but not the only, reason why there is a greater tendency in this country to place water plants than electric light and power plants under municipal ownership.

Private operation of business is as a rule more efficient and flexible than public operation. In order to avoid political considerations becoming the chief determinant of policies, a public industry is likely to become entangled in red tape and legal technicalities. However, large corporations often become victims of red tape and inelasticity of program. Private ownership of public utilities may be more efficient than public, but the heart of the problem centers in the tolls which the utilities are levying, under regulation, in the form of rates upon consumers. In times of high prices the insistence upon reproduction value as the basis for the determination of rates, the construction of complicated and bewildering mazes of mergers, holding corporations, and investment trusts, and other interesting financial legerdemain make possible the compounding of costs, expenses, and service fees. Are engineers and other experts in the public utility industries able to pass on to the public in lower rates and better service the results of their developmental work? Or, is it absorbed in the financial superstructure of large privately operated public utilities? The control of public utilities in this country in the near future depends in no small degree upon the answer given to the questions indicated above. If public utilities curb their hunger for extraordinary monopoly profits, if they are willing to accept reasonable and regular profits and dividends, the trend toward public ownership will be slow indeed. If, on the contrary, the public utilities try to exact the maximum possible in tolls and profits, a strenuous demand for public ownership may be expected.

Public ownership of utilities is much more common in Europe than in the United States. In the electric light and power industry, several towns and cities of California have demonstrated the possibilities of municipal ownership and operation under American conditions.[1] In many European countries politics plays a smaller rôle in the selection of public employees than in the United States, and in morale and ability European public employees are superior to corresponding groups in America. Capable public employees are frequently lured from the public service in this country by the higher salaries offered by private business. The development of public utilities is more advanced in the United States than in European countries. This situation is largely the result of conditions other than that due to private ownership and operation in this country. It is often urged that municipal lighting plants in the United States, unable to compete with privately operated plants, are decreasing in numbers and in relative importance; but larger numbers of privately owned plants are being purchased by large companies having huge central power plants and miles of high-tension wires. The electric plant producing electricity for the citizens of a town or a small city is being displaced by the central plant with its system of radiating high-tension wires. The small, isolated electric lighting plant, whether operated by a municipality or by a small private company, cannot long hold out against the large company. It is often urged that private ownership of utilities results in political corruption. The utilities, the argument runs, directly or indirectly induce the officials of municipalities to grant favors to the former. This argument in favor of public ownership of utilities seems weak when we recall that under public ownership similar men would control the expenditure of large sums of money with many opportunities for personal enrichment. The student should carefully weigh all arguments for and against public ownership and operation of utilities, remembering that even experts may have their views colored for or against the plan by their own private interests in the matter.

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[1] Bird, F. L., and Ryan, F. M., *Public Ownership on Trial*, Ch. I.

QUESTIONS

1. What is a public utility?
2. Should a public utility be subjected to governmental regulation? Why?
3. Is monopoly inevitable in public utilities? Why?
4. What facts would you desire in order to fix a fair rate for an electric lighting plant?
5. What basis would you recommend for the determination of fair rates?

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CHAPTER XXII

INTERNATIONAL TRADE

Principles and Practices in International Trade. International trade is often conceived to be tinged with mystery which is lacking when considering domestic trade. Trading across national boundaries is held to inject certain peculiarities into business. This is mere superstition or ignorance. There is nothing abnormal or peculiar about foreign trade. The mere crossing of an artificially drawn political boundary line does not alter the fundamentals of commerce. Exchange between England and the United States is not essentially different from trade between Cleveland and Florida. It is true that certain business customs have been evolved in foreign trade that are not followed in domestic trade, and the two countries use different monetary standards. Fundamentally, however, trade between nations and trade within a nation are matters of exchange of goods for goods; foreign trade is a modernized form of barter camouflaged behind bills of exchange, investments, and banking institutions.

In order to understand clearly the essential elements in foreign trade, let us assume a very simple case of two shipments of goods between New York and London in which four persons are concerned—two in New York and two in London. Let us assume that Smith, a New York exporter, ships a cargo of wheat to Roberts of London at a price of £1000; and that Jones, a New York importer, buys a cargo of woolen goods at the same price from Brown of London. Each one of these shipments might be paid in gold. In that case gold would be shipped from and to London in settlement of the shipments of merchandise. Let us suppose that Smith and Jones in New York are acquainted with each other. Smith may draw a draft or bill of exchange ordering Roberts to pay to Jones or order £1000 and charge the same to Smith's account. Smith then sells this order to Jones and receives £1000 for it. Jones indorses it, making it payable to Brown, and sends it through the mails to Brown in London. Brown collects the £1000 from Roberts. In this simple case the payments have been made without shipping gold at all. One payment has been made in New York and one payment in London and a bill of exchange has been sent through the mails from New York to London. According to established custom Roberts is expected to pay Smith in London. If Smith desires the gold, it would be necessary for him to import it from London. In like manner Jones is expected to pay Brown in London, and it would be necessary for Jones to pay the cost of shipping gold to London if payment were made in that way. In this case of exchange between New York and London which has just been considered, the woolen goods which Jones of New York buys is actually paid for, as far as international settlements are concerned, by the shipment of wheat made by Smith of New York. Goods imported are paid for by the exportation of goods.

The case described above is much simpler than actual practice. Importers such as Jones may not be acquainted with an exporter (Smith); the amount of the payment to be made by Jones may not be identical with that owed by the London merchant Roberts to Smith. Other complications may easily be discovered. Banks dealing in foreign trade bills act as middlemen. A New York bank will have a London bank as a correspondent bank; the New York bank will have a deposit in the London bank. The accompanying diagram illustrates the actual process carried out in trade between London and New York.[1] Smith takes his bill to the New York bank and sells it to that bank. The bank forwards it to the London bank which in turn collects the amount due from Roberts. In this manner the New York bank builds up its deposit in the London bank. Jones goes to a New York bank and buys a bill drawn by the bank upon its London correspondent bank. He sends the endorsed bill to Brown, who collects directly or through another London bank the amount due from the London bank upon which the bill is drawn. In this manner the deposit of the New York bank in London is reduced.

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[1] Cross, I. B., *Domestic and Foreign Trade*, p. 125.

SMITH IN NEW YORK

Roberts owes Smith

ROBERTS IN LONDON

Smith draws draft on Roberts and sells it to a New York bank.

London bank collects from Roberts.

NEW YORK BANK

LONDON BANK

Sends draft to London bank.

Jones buys draft from New York bank and mails draft to Brown in London.

Brown collects from London bank.

JONES IN NEW YORK

Jones owes Brown

BROWN IN LONDON

The par of exchange is 4.86+. This is the gold price of the English pound as compared with the American dollar. The English pound is equal to $4.86+ in American money. Omitting from consideration invisible balances (which will be investigated later), if the value of goods exported from New York to London exactly equals the value of goods imported, the demand and supply of bills will be identical in amount. Gold would not be shipped to or from Europe. Bills of exchange would sell at par, $4.86+ for an English pound. The banks would, of course, charge small fees for their services.

If, however, exporters like Smith export goods which cost more than the goods importers buy, more bills are drawn than are demanded. If no attention be paid to invisible items, it would soon be necessary to import gold to balance the surplus of goods exported over goods imported. As in the usual case of a large supply relative to demand, the price of bills tends downward below the par of $4.86+. Some exporters would be obliged to accept gold in London and pay the expenses of shipping it to New York. If the cost of shipping a pound ($4.86+) of gold, including crating, cartage, transportation charges, insurance, and loss of interest during the period of shipment, is equal to three cents, bills may sell as low as $4.83+; that is, the par of exchange minus the shipping costs. If the discount were more, it would be more profitable to accept the gold in London and pay the cost of shipping gold. When exports are greater than imports, American exporters are obliged, invisible items aside, to accept less than par for their bills drawn in English pounds.

On the other hand, when more goods are imported than exported, the demand for bills exceeds the supply. Gold must be shipped from New York to London to balance exports and imports. Under these circumstances, the price of bills tends to rise. It may go as high as par plus the cost of shipping gold across the Atlantic, or approximately $4.89+. At that price the importer might pay for bills at the rate of $4.89+ for each English pound, or he might export gold to London. The cost under the hypothesis as to the cost of shipment would be exactly the same. When the total cost of shipping gold from New York to London, or the reverse, is three cents per English pound, the upper and lower "gold points" are $4.89+ and $4.83+.

The International Balance Sheet. In the early period of international trade, exchange was largely that of goods for goods; balances were settled by the shipment of precious metals, gold, and silver. In recent generations international borrowing and lending have become important, and the expenditures of tourists abroad are not negligible. The early simplicity of visible trade has been complicated by the appearance of a multitude of invisible items—that is, items which do not find a place in the published statistics of exports and imports. The explanation of the settlement of international trade by means of bills of exchange used in connection with the exportation and importation of commodities must be carried a step further.

The international trade balance of any nation consists primarily of export or credit items and import or debit items. Below is presented in brief form the chief items which appear in an American balance sheet.

EXPORT ITEMS

Visible Items
    Exports of merchandise
    Exports of money (specie)

Invisible Items
- Payment to Americans of loans made to foreign governments, corporations, or individuals
- Payment of interest and dividends on investments and loans abroad
- American securities sold abroad
- Freight charges on exports carried in American ships
- Service to foreign tourists

IMPORT ITEMS

Visible Items
- Imports of merchandise
- Imports of money (specie)

Invisible Items
- Purchase of foreign securities
- Interest and dividends paid to foreign owners of American securities
- Payment of loans, etc., made to us by foreigners
- Freight charges on imports carried in foreign vessels
- Services to American tourists abroad
- Immigrant remittances to home countries

If exact and complete statistics were available, the visible and invisible export and import items would exactly balance. The export items, except in the case of specie shipments, create a supply of bills, and the import items, except importations of specie, cause a demand for bills of exchange of the type discussed above. An American tourist abroad spends his purchasing power in a foreign land and utilizes the goods and services obtained in foreign lands instead of importing and utilizing the goods at home, but in either case means of payment abroad must be provided. The tourist in foreign countries is a purchaser of bills of exchange or their equivalent. In like manner, the American investor who buys bonds of a foreign nation or the stocks and bonds of foreign corporations must find means of payment. He buys bills of exchange calling for payment abroad exactly as if he were an importer of merchandise. He actually imports foreign securities. On the other hand, when a foreigner buys American securities, the American owner may draw an order upon his bank for the amount agreed upon in the same fashion as would an American exporter of merchandise. In this case American securities are exported.

When a country is shipping outside its borders to the people of other nations more goods than the people of the other countries are sending to the first nation, the balance of trade is called "favorable." If a farmer continued to send away more of his products than he received in goods, he would be considered a poor business man, but if the entire nation does the same thing, we speak of its success. It is said to have a favorable balance of trade. If a country imports more merchandise than it exports, it is said to have an "unfavorable" balance of trade.

The use of these terms originated during the mercantilist period preceding the Industrial Revolution. It was a time when the nations of Northern Europe, and especially England, were beginning to develop a crude form of manufacture and were endeavoring to organize a monetary and a banking system. As England did not produce gold or silver, in order to obtain these essentials of a monetary system it was necessary to import them. The plan of the mercantilist group was to import raw materials, work these materials into finished goods, and export the latter. Since manufactured goods were more valuable than the raw materials used in their production, the exports were expected to exceed the imports in value. As invisible items in the international trade balance were as yet practically nonexistent, the difference between exports and imports was balanced by the shipment of gold and silver to the country engaging in manufacture. National wealth was conceived by the mercantilists to consist chiefly of the precious metals. A "favorable" balance of trade was thought to be favorable because it increased the stock of gold and silver, and, consequently, the wealth of the nation. Today economists are agreed that the words "favorable" and "unfavorable" when used in connection with international trade balances have no significance. A "favorable" balance of trade may be undesirable.

International Debts. In recent generations much borrowing and lending takes place across national boundaries. Individuals and corporations borrow of individuals and corporations in other countries. Occasionally a government borrows abroad either directly from another government or by selling bonds to individuals and corporations in foreign countries. During the World War the government of the United States made large loans to the Allied governments. International loans are not made in money; they are merely priced in money. Actually, loans and the payments of debts or of interest and of dividends call for the transfer of commodities. The War loan of several billions of dollars to the Allied governments was in reality made by shipping supplies and munitions. During the years 1915 to 1920 American exports far exceeded the imports. We were paying debts owed abroad, buying back American securities held abroad, and lending to European governments and corporations. The unprecedented excess of exports over imports enabled us to change debts into credits. Reparations, like debts, must also be paid ultimately in goods.

A young nation emerging from frontier and purely agricultural conditions into an industrial status may hasten its progress by borrowing from older countries. During this period the nation will have an unfavorable balance of trade; it will import more than it exports. It becomes what has been aptly described as an "immature debtor" country. As the borrowings of corporations and individuals increase, larger and larger interest and dividend payments must be made to the corporations and individual investors of other countries. Such payments must be made, it will be recalled, in commodities. As time goes on, the payments of interest and of the principal of debts require larger and larger amounts of exports. Presently, a nation which is a debtor of long standing must export more than it imports; its balance of trade becomes favorable. Only in this fashion can interest and international debts be paid. This statement should be qualified somewhat. If the creditor nation sends large numbers of tourists to the debtor nation or if the debtor nation's vessels act as the carriers of goods shipped by the business units of the creditor nation, such services may aid in the payment of international debts and interest. When the debtor country reaches the stage in which it begins to pay debts and interest in larger amounts than it continues to borrow, it passes into the "mature debtor" class. The United States ceased being an immature debtor nation about 1874. We continued as a mature debtor nation with a favorable balance of trade until the World War.

Creditor nations may likewise be classified as "immature" or "mature." In an immature creditor nation business interests and individual investors begin to look abroad for investments which promise higher returns than at home. During this stage exports exceed imports; the balance of trade is favorable. The corporations and individuals of the nation are shipping commodities abroad in excess of imports and are receiving promises to pay at some future date. Sooner or later a creditor nation that continues for a long period of years to lend abroad will build up large credits calling for dividend, interest, and principal payments. When the latter payments become greater than new loans abroad, the country becomes a mature creditor nation. Its imports now exceed its exports; the balance of trade is unfavorable. For many years previous to the World War England was a mature creditor nation. An immature debtor and a mature creditor nation have unfavorable trade balances; a mature debtor and an immature creditor nation have favorable balances.[1]

The shift from being an immature creditor nation with a favorable balance of trade to the status of a mature creditor nation with an unfavorable balance is likely to cause pains of adjustment. The United States is now facing such an adjustment, unless we cancel the debts owed by foreign countries to the government of the United States. If European nations and corporations begin to pay their debts, we must accept as imports large quantities of commodities, many of which will compete in our markets with goods produced at home. Objections will immediately be raised by the producers of such commodities. For example, if payment be made in steel products, the steel interests will object, and if cloth be sent, the textile group will object. Large international payments of debts are not easy to make on the part of debtors, and, strange though it may appear, such payments are often difficult to make because of objections arising within the creditor nation. In international trade we seem to accept readily the notion that "it is more blessed to give than to receive."

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[1] See Bye, R. T., and Hewett, W., *Applied Economics*, pp. 380 ff.

QUESTIONS

1. Can a country be prosperous without stimulating exportation?
2. Show that imports are actually paid for by exports.
3. How must international debts be paid?
4. Explain how bills of exchange are used in foreign trade.
5. What are invisible balances?
6. What are gold points?
7. What is the significance of a favorable balance of trade?

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CHAPTER XXIII

THE TARIFF

Free Trade, Tariff for Revenue Only, and a Protective Tariff. When goods are imported into a country which imposes a tariff, duties are collected at the port of entry and export duties may also be imposed. The Federal Constitution, however, forbids the levy of an export duty by our government. When no import or export duties are levied, free trade is maintained by the nation. Within the boundaries of the United States free trade exists. No state can erect tariff barriers against goods produced in another state. The United States constitutes a great free-trade area.

A tariff for revenue only is imposed upon articles not produced in the country. Great Britain is a tariff-for-revenue-only country. Great Britain levies low tariff duties upon such articles as coffee, tea, sugar, and tobacco since there is no home production of these commodities. Home industry is not protected. The prices of these articles are raised somewhat because of the tariff duties. A protective tariff, on the other hand, is levied upon articles produced or which may be readily produced within the country. The highest form of protective tariff would be an embargo. Such a measure would protect but would not produce revenues for the government. The rates levied under a protective tariff law, which is also a revenue measure, must not be too high. Revenue is collected only when goods are imported from abroad. A tariff on imports tends to raise the price charged for the imported article, and consequently allows the home producer to charge more for the portion of the supply of the protected commodity which is produced at home. Protection means paying more for the protected goods temporarily or permanently, but the government derives a revenue only from the portion of the supply of an article which is imported from abroad. Since a protective tariff constitutes an artificial barrier to the free movement of goods from one country to another, it may not inappropriately be called a substitute for bad roads. When transportation facilities were very bad, no protective tariffs were necessary.

Arguments for Free Trade. Free trade within the United States allows the Imperial Valley to specialize in growing certain fruits and vegetables. These products are shipped to distant towns and cities. In turn, these towns and cities send their fabricated goods to the families of the Imperial Valley. Territorial division of labor is highly developed as a consequence of good transportation facilities and in the absence of hampering tariff regulations. The advocates of free trade insist that unrestricted trade increases total productivity, as it allows each section and each country to devote a large share of its productive efforts to the preparation and sale of such products as it has special advantages in producing. These may be exchanged for commodities produced by another section or country. To hamper or to prevent such an interchange of goods would oblige each country to produce articles for which it is not well adapted. The prosperity and total productivity of two nations may be threatened by forcing each to produce all articles supplied to its people.

The Infant Industry Argument for a Protective Tariff. One of the earliest and best arguments in favor of a protective tariff system is called "the infant industry argument." Friedrich List, a German economist who lived for several years in the United States, presented this argument in its best form. A country in the agricultural stage may find it difficult, because of the competition of more industrially advanced countries, to develop manufacturing industry. A tariff judiciously placed upon the products of certain manufacturing establishments for which the backward country is well adapted will hasten the transition from agriculture to manufacture. Without such protection the older industries in other countries will be able to drive out the infant industries before they have an opportunity to gain strength and reduce their costs of production. According to List, after an infant industry has been protected for a period of years, it should become strong enough to stand on its own feet and face its competitors from other parts of the world. When the infant has grown strong, protection should be removed. As advocated by such protectionists as James A. Garfield, protection leads in due time to free trade.

Unfortunately, in actual practice, mistakes may be made. Either industries may be selected which are never able to compete with the foreigner on an equal footing, or, after the industry has become strong, it continues to demand protection and to use influence to prevent the tearing down of its own particular tariff wall. Manufacturing industry in the United States began on the Atlantic Coast. It has spread westward steadily without the aid of a tariff protecting the infant Middle West from the older industries of New England, New York, and Pennsylvania. Is it not probable that well-adapted industry will go where opportunity knocks, without the sheltering arms of the tariff? In 1930 the actual principle followed in tariff making was that of using the tariff to resuscitate ailing industries. Congress apparently looked upon the tariff as a perpetual guardian of manufacture. This is the infant industry argument gone sadly astray.

The Home Market Argument. This argument was popularized by Henry Clay. He declared that the development of industry in this country would make a home market for the products of the farm and of the factory as well. What the advocates of the home market did not see, or ignored, was the fundamental principle that when imports are cut off by developing certain kinds of home industry behind a tariff wall, exports of goods produced by other unprotected home producers are reduced. Imports are paid for by exports. If we reduce our purchases abroad, the foreigners must in turn cease buying so much of us. In the early part of last century, and perhaps down to the present time in a lesser degree, the home market is more stable and less likely to be affected by wars and internal complications than is the foreign market. From the point of view of stability of markets, the home market argument has validity.

The Wages Argument. Originally, advocates of a protective tariff argued that since the United States was a new country with great quantities of undeveloped land and natural resources but with a scarcity of wage workers, wages were high in this country. In order to develop American industry, it was necessary to pass protective tariff laws because wages were high. Later, after the workingmen of the North were allowed to vote, the argument was modified. It was then urged that a protective tariff was needed to keep wages high. Otherwise, the competition of lower-paid foreign workers would force downward the general level of wages.

It is clear that low wages are often dear wages and that high wages may be low-cost wages. Chinese workers receive low wages, but the cost of production per unit of output is not low. Highly paid American workers using up-to-date machinery and directed by skilled management are highly efficient. High money wages and low costs may be found in the same establishment. Tariffs do not increase the general level of wages.[1] If a country is rich in natural resources, sources of power, and scientific and managerial talents, high standards of living may be maintained. A protective tariff would keep out the products of cheap labor, but the tariff would avail little in maintaining high wages unless immigration was checked.

The War Argument. This argument in a slightly modified form may also be presented as one in favor of diversified industries or in favor of economic self-sufficiency. Fundamentally these three arguments are alike. For various reasons it is held to be wise to stimulate diversification of products and industries. In times of war, a nation with highly specialized goods may be at the mercy of a foe able to blockade or cut lines of communication and trade. Diversified industries also make a nation feel independent; a spirit of nationalism is nurtured. Too great industrial specialization may result in drab and unattractive uniformity. These arguments may be conclusive from a political or a cultural point of view, but let us understand that it may be expensive to develop and maintain certain industries, desirable in war times or for economic self-sufficiency. In discussions on the tariff question care should be taken to distinguish carefully between arguments which are primarily economic and those which are essentially political. A protective tariff may be costly from an economic point of view, but political considerations may overbalance the former. It may be inefficient and uneconomical to produce certain kinds of materials which are essential in time of war, but considerations connected with the requirements of national defense will lead to the adoption of a tariff fostering the home production of such materials.

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[1] See Chapter on Wages.

Equalization of Cost. The foregoing arguments in favor of a protective tariff are the traditional ones hallowed by age and the prestige of statesmen of preceding generations. Alexander Hamilton, as the first Secretary of the Treasury, presented a famous *Report on Manufacture* which included these old arguments in a pleasing and persuasive fashion. In recent years only one important new argument for a protective tariff has been developed. It has been urged with much earnestness that the tariff should be levied according to the difference in the cost of production at home and abroad. This policy would enable home producers to meet fairly, it is asserted, competition from abroad. It evidently would offer some protection to such industries as were already established here and which had not yet been able to lower their costs to a point equal to or below those of foreign producers. This policy seems to be a sort of hang-over from the infant industry argument. The industry protected does not grow up, but, since it has started, give it protection according to the equalization principle. This argument has certain elements of plausibility. The practical difficulties are, however, a legion. Different producers of a commodity at home and abroad have different costs of production. In the process of equalization, which shall be selected as basic—the highest-cost firm at home and the lowest-cost producer abroad, or the average, or some other combination? And, further, how can we ascertain accurately and comparably the relative costs of production of the different home and foreign producers? Certainly other nations are not likely for this purpose to oblige their producers to keep and disclose to American authorities cost accounts. The obstacles in actual practice seem insuperable.

Why Does the Tariff Controversy Continue? Economists in the United States have as a rule opposed a high protective tariff and today are practically a unit against revision upward. The validity of the infant industry argument in the early years of our industrial development and of the war argument has been conceded by many students of economics. But the United States is now a highly developed industrial nation blessed with diversified industry. Neither the infant industry nor the war argument seems specifically appropriate at the present time. In the face of such considerations, why does the protective tariff system continue to draw powerful support? The answer to this conundrum may be discerned by noting that the economists look to general and long-time considerations, while the ardent supporters of a protective tariff system are individuals and groups of individuals who hope to receive direct and immediate benefit from a tariff protecting businesses in which they are directly or indirectly interested financially. One view emphasizes that indefinite entity called "general welfare." The advocates of a protective tariff see benefit to their business and their group, or to the section of the nation in which they live, and, consciously or unconsciously, they translate special benefit into general good. All of us are prone to feel that benefit to us and to our friends is also desirable to society as a whole. In 1880 General Hancock, candidate for the presidency, asserted that the tariff was a local matter. He was laughed at as an ignoramus, but fifty years later a leading financial journal [1] declared that "the tariff *is* a local question." The protective tariff struggle is interminable; it is concerned primarily with rates and with advantages for this locality or that industry.

Few students of the tariff problem would advocate tearing down completely and at once the American tariff wall. Industries have been built up and capital invested in business which would be seriously affected by a great and sudden reversal of our traditional tariff policy. It may, however, be safely urged that no further increases in protective tariff rates are warranted. A program of gradual revision downward instead of upward should be followed. Higher tariffs will tend to raise rather than lower the cost of living here and abroad. The following important groups in the community can scarcely hope to gain by an increased measure of protection: farmers; miners; construction workers; transportation and public utility workers; professional men and women; employees in banks, hotels, retail and wholesale trades, and newspaper offices; exporters; investors in foreign securities. Furthermore, higher tariffs invite reprisals from other nations.[1] President McKinley in his last speech in 1901 very wisely declared that "a system which provides a mutual exchange of commodities is manifestly essential to the continued and healthful growth of our export trade. We must not repose in fancied security that we can forever sell everything and buy little or nothing." A protective tariff by reducing imports must also tend to reduce exports. Foreign trade is not one-way traffic. Prosperous national neighbors help to make for prosperity at home.

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[1] *The Commercial and Financial Chronicle,* April 5, 1930.

History of American Tariff Legislation. The new government was barely organized before financial problems were of necessity thrust upon it. To obtain essential revenues without causing too much opposition was not easy. Foreign trade was looked upon as fitting for the application of tax measures. Since the Constitution prohibited the levying of a duty on exports, the choice fell upon imports. The first tariff act was enacted in 1789. It was essentially a revenue measure, but the protective element was not lacking. The preamble of the bill stated that one of the objects was "the encouragement and protection of manufacture." The average rate of duty on an ad valorem basis was about 8½ per cent. Obviously, a high rate would have been impossible of reasonable enforcement; it would have stimulated smuggling with which the newly organized government was not prepared to cope. Hamilton's *Report on Manufacture* (1790) is a classic in the literature of protection.

The Embargo and Non-Intercourse Acts, followed by the War of 1812, quite effectively protected American infant industries. After the war ended, England prepared to flood the American markets with English-made goods. American producers frantically clamored for protection, and the government needed more revenue. In 1816 Congress passed a tariff measure in which the element of protection to American manufacture unmistakably had a place. The Act of 1824 was a revision upward. The Tariff of 1828 was passed after a bitter struggle in which political considerations looking to the election of a President in the fall were paramount. This act carried protection to American industries to the high-water mark of the pre-Civil War period. The Tariff of 1828 was called in derision the "tariff of abomination." The South was, by 1828, definitely opposed to the protective tariff system.

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[1] See statement signed by a large group of economists in the spring of 1930.

In 1832 another measure was passed which struck out some of the worst features of the Act of 1828, but did not materially reduce the element of protection. South Carolina, feeling that the industrial interests of the North proposed to make protection permanent rather than a temporary expedient to bolster up infant industries, threatened to nullify the law by preventing its enforcement within the limits of the state. In this crisis Henry Clay offered a compromise measure, known as the Act of 1833, which provided for a gradual reduction of the tariff rates. The Acts of 1842, 1846, and 1857 placed protection somewhat in the background.

The opening of the Civil War caused the government to make strenuous efforts to obtain new sources of revenue. A widespread system of internal revenue duties placed upon a large number of objects was developed. Duties were placed upon manufactured articles and upon various businesses and occupations. In order to compensate for the internal revenue duties upon home industry, it was necessary to place new and higher tariff upon foreign-made goods. After the war ended, the internal revenue system gradually disintegrated leaving chiefly duties on liquors and tobacco, but the compensating tariff duties were not reduced. During the Civil War the industries of the North grew in output and political influence, but the South had little political strength. The United States was definitely committed to the protective tariff policy.

Only slight changes in the tariff rates were made in 1883 by the first general tariff law following the close of the Civil War. The Democrats elected a President in 1884. President Cleveland and his party were pledged to tariff revision downward, but only debates in Congress followed. With the return to power of the Republican Party, the McKinley Act of 1890 was passed revising rates upward, not downward. In 1894 the Democratic Party, again in control, reduced slightly the level of tariff rates. In 1897 the Republicans passed a measure which carried the protective wall even higher than in 1890. For twelve years, 1897–1909, tariff tinkering was neglected. The Act of 1909 modified many rates, but the net result was to revise rates upward rather than downward. After the Democratic Party came into power in 1913, rates were reduced, but the act was by no means a tariff-for-revenue-only measure.

Again, in 1921 and 1922, the Republicans played the old game of tariff modification. Dyes and chemicals were protected by extremely high rates. An attempt was made to find a way to aid the farmer, and the President was given the power, within 50 per cent, to revise any rate upward or downward in order to equalize the cost of production between the United States and foreign countries. In 1929 and 1930 tariff revision was again before Congress. The struggle was long and acrimonious. While the tide of public opinion seemed to be turning definitely toward revision downward, the net result of the Act of 1930 was revision upward. In "each and every" one of the fifteen general schedules the average rates were raised.[1] According to an industrious statistician, the rates were changed on 1,122 items; 887 were revised upward and only 235 downward.

Tariff Making. In accord with a provision in the Federal Constitution, tariff measures originate in the House of Representatives. When tariff revision is under consideration, in the ordinary course of events the Ways and Means Committee holds hearings, studies reports and statistics provided by the Tariff Commission, writes and submits to the House a bill for consideration. Usually many amendments are offered in behalf of different sections of the country and special interests. Some of these amendments almost invariably are tacked on to the original measure. A process of log-rolling takes place. One representative who has a special interest to protect votes with others having similar designs, providing they vote for his pet measure. After the amended bill passes the House, it is placed before the Senate. There it is referred to a committee. This committee considers the bill and usually reports it out with some modifications. The Senate may debate long and eloquently upon the measure, and more changes may be made. If the Senate passes the bill, it will be different in certain particulars from the measure passed by the House. The next step is to refer the two measures to a joint conference committee. The bill as it emerges from the hands of the conference committee may or may not bear a resemblance to the original bills. If the conference committee agrees upon the details, both House and Senate usually accept the conference measure. This long and devious process is accompanied by much lobbying and log-rolling. The bill in its final form is long and complex; it is a compromise and satisfies no one. If the President signs the measure, it becomes a statute.

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[1] Taussig, F. W., *Quarterly Journal of Economics*, November, 1930.

The United States Tariff Commission was established in 1916. It exists for the purpose of studying the effect of tariff measures, and for aiding and advising Congress and the President in regard to the principles and details of tariff legislation. The Commission has no power over tariff rate making; it is an advisory body. Unfortunately, the power and prestige of special interests are so great that the actual influence of the Tariff Commission on tariff legislation is not considerable. Protective tariff making in the United States is neither a scientific nor a dignified procedure; it is usually a sorry spectacle.

QUESTIONS

1. "Domestic trade cannot increase the wealth of the nation. It is only by foreign trade, and then only by getting more than is given, that a nation can enrich itself." Discuss.
2. "To the same extent that the home market is wrested from foreigners and given to protected home producers, the foreign market is taken from unprotected home producers." Is this statement true?
3. "It will never pay us to import anything which we ourselves can produce." Do you agree? Why?
4. "If we buy steel rails of England, we get the rails and England gets the money; but, if we buy steel rails at home, we have the rails and the money." Comment.
5. If we could induce the Chinese to buy large quantities of our manufactured products, how would the Chinese pay for such goods?

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CHAPTER XXIV

BUSINESS CYCLES

Science and Business. Until recently business organization and methods have not been carefully studied; the business world was thought to be one of mystery. Hard work, courage, and luck were the only recognized keys to success in business. Much of what was the unknown in physics, chemistry, geography, astronomy, and other sciences has been translated into the known and understood, but men have persistently looked upon the vicissitudes of the business world, upon booms and panics, upon depression and prosperity, upon successes and failures, as something beyond the yardstick of scientific investigation. Depressions and panics were looked upon as mysterious catastrophies which neither the individual firm nor the community could guard against. In astronomy experts are able to foretell to a second the coming of an eclipse. The planet Neptune was discovered as the result of mathematical calculations. The movements of comets are predicted accurately. The Weather Bureau with some degree of accuracy is able to forecast a storm or an early frost. A voyage across the Atlantic Ocean was a matter of great uncertainty and risk at the end of the fifteenth century; today the elements of chance and hazard have been greatly reduced. Ships go swiftly, accurately, safely, and punctually from port to port.

Business has been a vast, almost uncharted, sea swept periodically by dangerous and unpredictable storms. The business managers, engineers, and statisticians face a twofold problem: (1) To what extent may science, safety, and certainty be introduced into the world of business? (2) Is it possible to organize a business weather bureau which will enable the directors of business affairs to forecast business storms and clearing skies? Reasonably accurate forecasting of business weather will enable business men not only to prepare for depressions but will also help them to mitigate the evils of the depression. The Federal Weather Bureau can send out warnings of a storm; we can prepare for it; but up to date no way has been found of modifying the severity of the storm. If, however, business forecasting were fairly accurate and industrial leaders generally heeded the business storm signals, the depression would be nearly eliminated.

As long as little or nothing is known of the causes of business fluctuations, as long as the relation of cause and effect is not understood in the business world, business men are peculiarly susceptible to fear. The primitive man was afraid of happenings which we are able to explain. A flood, an eclipse, an epidemic were considered to be caused by evil spirits. Men were afraid; they cowered. Until we began dimly to see the line of cause and effect in the case of floods, eclipses, and epidemics, little or nothing was accomplished in controlling such phenomena. The American people have been too frequently inclined to look upon a business crisis as did the primitive man upon a flood. It has been considered a catastrophy the cause of which is unknown, and no attempts have been made to ascertain rational remedies. The financier is especially susceptible to fear. Fright spreads easily from one group to another. As a consequence, the industrial and financial world is often thrown out of gear by the fear of a depression.

America is standing on the threshold of a new era in regard to business philosophy, administration, and technique. The pioneer found it economical to be wasteful of forests, game, and soil; rule-of-thumb and wasteful methods of doing things were not harmful in the pioneer period of American life. Such business as was carried on was small-scale and highly competitive. There was little of teamwork or of scientific methods. As the years passed and the population increased rapidly, as markets became nation-wide and world-wide in extent, and as one industry became more and more dependent upon the effective and continuous functioning of others, Americans began to look with increasing suspicion upon waste and muddling through. The engineer and the research expert appear, and conservation and science become familiar words in our vocabulary. Applied science is now taking a prominent place in the field of business endeavor; men are thinking and writing about "the emerging profession of business." The business man of a generation or more ago gloried in his ability to fight hard and to get out of business situations which threatened him with bankruptcy. The up-to-date business man is using research and statistical methods to forecast business emergencies with the bright hope of greatly reducing the dangers which beset the course of the old-fashioned business man who scorned statistics and research. Today it is "research or retrogression." Today the successful business man must of necessity plan for the future. His success or failure depends upon statistics and research instead of upon hunches and guesswork. The wide-awake industrial leader is getting out of "hunches common" and into "research preferred." The foundations of a science of business are being quietly laid. Industrial leaders are being more and more interested in the causes of business cycles and business changes. In spite of the recent flare for stock-market speculation, the new type of business management aims to reduce speculation to a minimum and to obtain as far as possible regularity and certainty in business affairs.

Industrial or business research is a systematic method of improving our ways of producing, marketing, and utilizing goods, of adding to our store of knowledge. Research is not a magic wand; it is not a cure-all for the ills which afflict the poorly managed establishment; it is a tool which, properly used, makes business judgment and experience more effective. Statistics may make evident past errors, but the chief purpose of appealing to statistics and research is that of preventing serious mistakes in the future. Business men will more and more use the results of research in order to anticipate coming events in the economic field.

Rhythms in Industry. While the business cycle was not recognized before the Industrial Revolution which ushered in the age of machinery, power, and credit, there may be discerned in the history of civilization many rhythmic movements. Nations and peoples are prosperous at one time and later in a condition of famine and pestilence. There have been many a rise and fall of nations, civilizations, and peoples. History is an interesting and variegated story of change and of spirals which do not quite return to the same place. Economic and social life is never static. A cycle or rhythm may be found in many industries; the problem of business regularization is difficult. Retail stores have rush hours and busy seasons; electric lighting plants are troubled by "peak loads" followed by little demand at other times; the street railway finds it difficult to meet the demands made for transportation at certain morning and afternoon hours; farming and other industries are subject to great seasonal fluctuations. A university stadium used for football games is an extreme example of sudden extraordinary utilization for a few short periods with practically no utilization for the remainder of the year. Amusement houses are subject to extreme alternations or rhythms in demand. Outside the business world rhythms are of common occurrence. Rest and recuperation after strenuous exertion, the alternations of day and night, and of the seasons, are familiar examples. Statisticians have noted a marked periodicity in the prevalence of typhoid fever and other infectious diseases. There is a recurrence of a maximum and a minimum in the number of cases. Life is replete with rhythms. The business cycle is only one of many which intimately touch our daily life.

What Is the Business Cycle? The constant and somewhat regular ebb and flow in business affairs, the succession of prosperity and depression, or of "good" and "bad" times, constitutes what is called "the business cycle." The term has been in common use for only a comparatively short period of years. The attention was first directed to the dismal and dramatic episodes called crises or panics. These were vividly described and investigated long before the discovery was made that a crisis or a panic was only a segment of a somewhat regularly recurring cycle. No two business cycles are exactly alike in duration or in amplitude or shape of the curve drawn graphically to depict the rise and fall of business prosperity. As ordinarily described, a business cycle exhibits four distinct phases of varying duration—prosperity, crisis (sometimes accompanied by a bank panic), depression, and recovery.

A description of the phenomena of a business cycle may begin with any one of these four phases. The one first described will have developed out of the phase directly preceding it. The "prosperity" phase, for example, has grown out of the one denominated "recovery." Rising prices, greater productivity, renewed activity in building, large profits, high interest rates, and a feeling of optimism are the typical marks of the prosperity portion of the cycle. Before this phase ends, over-development in many lines of industry and an unwise extension of credit are likely to take place. Finally, the top-heavy credit structure is subjected to some new and unexpected strain, and a liquidation of credit begins. Improvements are stopped, old orders cancelled, and few new orders are placed. Plants shut down or run on part time, unemployment mounts, purchasing power is curtailed, prices of commodities and of corporation stocks are lowered, and interest rates fall. Before the Federal Reserve Banking System was inaugurated, a bank panic often accompanied a crisis. A number of banks closed their doors and depositors in others were unable to draw out funds deposited in these banks.

A crisis is usually of short duration, but it is followed by a longer period of depression. Pessimism is now the dominant note. Enterprise is checked by the prevalence of low prices, by small prospective profits, by lack of purchasing power, by difficulty in getting credit, and by the general feeling that the day of good times is past. When the crisis and depression begin, inventories and accumulated stocks are usually large. Gradually as time elaspes these stocks are sold. Presently demand begins to pick up and productive activities to revive. Costs and interest rates are low; this makes the road to recovery easier to follow. Bank deposits tend to decline and bank reserves to increase. Banks lower interest rates in order to stimulate loans to conservative business firms. Capital for improvements and additions can be obtained at low rates and prices are also low. Alert business leaders begin to take advantage of these conditions. In fact, it is usually better to enlarge a plant in a period of depression instead of near the end of the phase of prosperity and high prices. Business men, however, who follow hunches are likely to be pessimistic when they should be optimistic, and optimistic when pessimism is the appropriate frame of mind. Gradually, as the depression proceeds, business prospects look brighter, more workers get jobs, and, therefore, buy more. The dark clouds of pessimism gradually fade away, recovery merges into prosperity, and a new cycle is on its way.

Effects of Business Cycles. Business policies are materially affected by alternations in the business cycle. It also has important political, sociological, and psychological effects. The birth-rate of new industries and plants is high during prosperity. A quotation from Babson's Barometer Letter of December 20, 1921, is pertinent. "From 1918 to the middle of 1920 between two and three times as many mills and factories were built as in average times. The cost of these new plants was about double their replacement cost today. New machinery and appliances were bought in like proportion. Hundreds of new firms sprang up. Producing costs and producing capacity were geared up to an abnormal demand. The same capacity and the same overhead costs are excessive for average times."

In a time of depression the tendency is to emphasize the value of hard work and temperance. Business managers try to cut overhead expenses. Long and expensive vacations are frowned upon; less golf is played by business leaders. Willingness to work and to think become more fashionable than in the easy period of prosperity. Labor policies are adjusted somewhat to meet cyclical changes. During prosperous times unemployment is reduced; workers are not likely to lose their jobs because of lack of work. Under the traditional methods of shop operations, the workers slow down and are less efficient in a time of prosperity, while in a time of depression, each worker is afraid of being let out. He speeds up and works more carefully. This situation may be due to unwise or inadequate personnel methods. During the period of rapidly rising prices before 1921, employers, induced by a scarcity of workers, large turnover of labor, and increasing inefficiency in the plant, adopted with extraordinary alacrity new personnel policies. Employment managers were installed, shop committees organized, factory magazines printed, etc. When the depression came, many companies consigned these newfangled policies to the scrap heap and went back to the old and familiar ways of "putting labor in its place."

In the political field it is well known that a serious depression is likely to result in the defeat of the national party then in power. Radical groups, such as the Populist Party, the Socialist Party, the Non-Partisan League, the Farmer-Labor Party, and the Workers' Party, usually wax stronger in a period of hard times. Farmers are discontented and radical when the farming industry is not prosperous. Before the Civil War the fluctuations in the price of cotton constituted a barometer registering content or discontent in the South.

An individual's outlook upon life is affected by his financial condition. The prosperous individual is likely to be content with things as they are. Men without property or a stake in life are discontented with the present régime. They make good soil for radical propaganda. Many a radical has been transformed into a conservative as the result of personal prosperity. Crime waves are not entirely unrelated to changes in the business cycle. A period of depression tends to create an atmosphere of emotionalism. Students of crowd phenomena have asserted that powerful religious revivals often follow the spread of a period of economic depression. A curve representing waves of optimism and of pessimism would be similar to a business cycle curve, but the former lags in time somewhat behind the latter.

Causes of Business Cycles. Many divergent theories have been devised to account for cyclical movements in the world of business. One theory places its faith in changes in weather conditions. The sun-spot theory, advanced by an English economist, rests upon an alleged periodicity of these disturbances. It was argued that sun spots affected the amount of rainfall and the temperature, which in turn affected the size of the agricultural crops and the buying power of farmers, and, finally, produced a maladjustment in business affairs. More recently, Professor Moore of Columbia University reached the conclusion that an eight-year cycle in the growth of agricultural products exists. In turn this was connected with certain periodic movements of the planet Venus. This cycle in agricultural output was held to be influential in causing similar cycles in finished goods. It might be pointed out, however, that the crisis of 1920 was preceded by a year, 1919, of fairly good crops. Recent studies by the National Bureau of Economic Research have led to the conclusion that the duration of business cycles in this country have varied from about two years to approximately ten years. This fact would seem to dispose of the sun-spot and similar theories.

Psychological theories assume that waves of over-confidence and of pessimism follow one another in the business world and cause the alternations of the business cycle. Lack of confidence in the business future is held to induce forces which usher in a depression. A perpetual air of confidence would smooth out the business cycle, declare those who accept psychological manifestations as the cause of the alternations of the business cycle. Variations occur in the moods of people engaged in business, but these moods depend in no small degree upon the prospects of profitable business in the near future. This theory appears to reverse cause and effect.

The socialists have developed an exploitation theory of crises. The worker is not given in wages as much as he earns or produces. Capitalists of various and sundry kinds draw income in the form of rent, interest, and profits. Since the worker is robbed of a part of the fruits of his toil, he cannot purchase as much as he produces. Periodically a glut appears on the market and a crisis follows. Various other theories of over-production and under-consumption have been presented. Human wants are sufficiently elastic to make over-production of all sorts of products practically out of the question. If, however, over-production means production beyond the limits of profit-making, it often occurs in individual enterprises and industries. Or, if it means producing more than people are able to purchase, over-production has taken place in every period of depression. Violent fluctuations in the price of producers' goods, such as steel, often presage the coming of a period of crisis and depression, but what is the cause of this violent fluctuation in demand and price? Since nearly all goods are produced in anticipation of market demands in the future, maladjustment, over-development, and misdirected investment of capital may occur because of unwarranted optimism as to future demand and profits, or because of marked and unanticipated diminution in demand.

No simple explanation of such a complicated economic phenomenon as a business cycle seems adequate. A depression is always accompanied by a decline in purchasing power. Men and women out of work or working part time want food, clothing, and other necessities and comforts, but they are unable to obtain the requisite purchasing power. Producers and merchants have goods to sell. The community has men, machines, and materials, but no market for goods. Men and machines are idle while people willing to work lack the necessities of life. In earlier centuries scarcity was a menace to mankind. Today producing more than we seem able to purchase is characteristic of a depression. We have, let it be reiterated, the equipment, the power, men anxious to get jobs and who want things, but we do not find a market or sufficient purchasing power in a depression. Fundamentally the problem is: How can purchasing power be put into the hands of men and women who want things and who are willing to work to get the commodities they want? A depression, much unemployment, and lack of purchasing power go hand in hand.

Business Forecasting. Inability to foresee economic changes is doubtless a major cause of business failures. Ability to discern with some degree of accuracy coming business trends is a prime virtue among the leaders of business. To place business forecasting upon a definite scientific basis, as in the forecasting of an astronomical event, is not to be anticipated. Business forecasting, like predicting weather changes, is extremely difficult because of the number of variables involved. We cannot gather all of the factors involved into our barometer. At best, business forecasting can only afford certain general indications of business trends in the near future.

Students of business forecasting usually depend upon a consideration of the forces acting in preceding business cycles. They also attempt to make allowance for new factors which may enter the business situation. Several statistical services furnish forecasts of general modifications in business weather.

Among the services are Babson's, Brookmire's, and the Harvard Service. Some business enterprises work out special forecasting curves for their own industries. In certain cases these curves may follow so closely one of the general curves prepared by a statistical service that the latter is used. Forecasting helps a business to ascertain desirable policies for the near future, it assists in stabilizing the particular business, and it makes possible a shrewd estimate of sales within the next few months. In spite of the difficulties and inaccuracies of forecasting business changes, it is superior in the long run to playing hunches. The enterpriser who fails to discern in advance the major trends in business is headed toward failure.

Methods of Stabilization. Five important plans for smoothing out the business cycle may be considered. As these plans are dealt with elsewhere in this volume, only a brief discussion at this point will be necessary.

1. Provisions for a stable currency would be helpful. Inflation of the currency was chiefly responsible for the conditions which led to the severe panic of 1837. During a period of inflation prices rise, profits seem to come easily, the business man is optimistic, over-development of certain industries follows, speculation becomes common, and credit is likely to be granted too freely. Finally, a crash follows. In a period of depression prices fall, profits shrink, and business men are pessimistic. A stable currency would go far toward reducing the extreme oscillations of the business cycle.

2. When banks are allowed or stimulated to coöperate in times of stress, when reserves may be mobilized as under the Federal Reserve System, when interest rates on bank loans are adjusted in accord with the fluctuations of the business cycle—raised considerably in times of prosperity and of optimism and lowered in times of depression and of pessimism—some smoothing out of the curve representing the business cycle will result.

3. A public works program planned to push the construction of roads, public buildings, and other governmental enterprises in a time of depression, and to reduce the activity in public construction in the phase of the cycle called prosperity will help to keep business on an even keel. It would increase

the demand for products at a time when demand is slack; it would place purchasing power in the hands of workers who otherwise would be unemployed. These in turn buy goods which will stimulate other industries. In a period when industry is being stimulated, the withdrawal of the government in a measure from the field of construction will tend to prevent the excesses of a boom period.

4. Many industries, by studying market demand, by planning their work carefully, or by dovetailing industries, have accomplished much in stabilizing the rate of production through a period of months and years.

5. A compulsory unemployment insurance program may be devised so as to give added incentives to the managers of industry for the stabilization of business.

QUESTIONS

1. "Business forecasters have made bad mistakes." Is forecasting, therefore, useless?
2. In what way would accurate business forecasting help a merchant? A manufacturer of steel products?

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CHAPTER XXV

RISK–TAKING

All Business Enterprises Take Risks. Life means the daily facing of uncertainty; all living things are risk-takers. Every business enterprise involves more or less of risk-taking. Practically all goods are prepared for the market in anticipation of a demand. Machines are built and buildings constructed in expectation of certain market demands for the products the machine and buildings are to aid in producing. Marketable goods are made by means of roundabout methods which involve time and which tend to increase business hazards. Every business man who produces today for sale at a later date faces financial uncertainties; he is perforce a speculator. Risks may be roughly classified as technological or marketing. The first is connected with the destruction of materials or machines, of physical property. Fire, flood, earthquake, or tornado may destroy crops, buildings, equipment, or materials. Robbers may steal property from an individual or a corporation. Accidents may cause breakage. An early or a late frost may ruin a growing crop. Strikes, riots, or wars often result in the destruction of valuable capital goods.

Marketing risks are connected with forces which cause changes in market prices. Changes in the demand for or the supply of a particular commodity or fluctuations in price levels may unexpectedly increase or decrease the selling value of products and lead to unusual profits or losses. The longer the time between the beginning of the production of an article and its sale to the consumer, the greater the element of uncertainty and market hazard. Changes in fashion may cause a shrinkage in the market value of goods on hand. Losses may result from inventions which render a machine, costing a large sum of money to build, obsolescent and out of date.

No two industries are confronted by exactly the same type of hazards. The farmer, planting in the spring for the autumn harvest and for sale at a later date, faces the danger of frost, of too much rainfall or of a drought, of the attacks of certain insects. He takes risk of accidents or of fire losses. His market opportunities are affected by the production elsewhere of his crops and by changes in the demand for the output of his enterprise. The displacement of the horse by the automobile and the tractor has suddenly reduced the demand for oats and hay. Changes in the diet of multitudes of people have also increased financial uncertainties in the farming business.

The manufacturer of straw hats is affected by the kind of summer. If the summer is cold and wet, the demand for straw hats is materially reduced and financial losses instead of profits may follow. Sudden changes in style may lead to an unusual demand for a certain type of hat and unexpectedly reduce the demand for other styles. The growing habit of going without hats is another factor to be reckoned with. Changes in the fashions for women's garments have adversely affected the woolen industry. Governmental action, such as the enactment of a tariff measure, may introduce important changes in business conditions. The enactment of prohibition had a far-reaching effect upon a variety of industries. A war induces very great changes in demand and fundamentally modifies conditions under which industry is operated. Changes in price levels cause uncertainty and changes in business opportunities.

Speculation. Speculation consists in buying or selling or withholding goods from the market in the expectation of making gains from price changes. Professional speculators are specialists in risk-taking. A speculator may be at one time a seller and at another time a buyer. He is dealing with the kind of risks which arise in the ordinary course of business. Indeed, speculation in commodities, as will be shown later, may reduce certain vicissitudes of business and aid in steadying prices over a period of weeks or months. A gambler, on the contrary, makes his own hazards. He bets that an event will or will not occur. The risk the gambler takes is not an ordinary business risk. As there is an indistinct line of twilight between day and night, so there is a "twilight" zone between gambling and speculation. The professional speculator studies carefully the forces which may induce price fluctuations; he is not taking a blind chance. The successful speculator forecasts price changes more accurately than others.

Speculation does not ordinarily make or increase risks. "The speculator concentrates on his shoulders the natural risks of production and marketing, and is able to handle the risks efficiently because of his superlative genius for absorbing and interpreting market news, and of making forecasts, with scientific accuracy and on a gigantic scale, of the future market needs of the consumers of the world." [1] In the great organized produce markets, such as the wheat and cotton exchanges, the tendency of speculators is clearly toward a reduction of price fluctuations. When the crop is harvested and is ready for the market, the supply thrown on the market tends to be large and the price of the commodity tends to take a downward course. Then, speculators, large and small, professional and nonprofessional, buy up wheat or cotton and put it in warehouses. Large amounts are thus withdrawn from the market. Prices are raised as the result of this extra demand for storage purposes. Later, as prices again tend to rise because of a scarcity of the supply, the speculators gradually begin to place their supplies on the market. In this manner the market supply is increased and prices are prevented from going to extraordinary heights. The tendency of organized speculation in the produce market is toward a leveling of prices over a period of time and toward an equalization of consumption of the product over the same period of time. The speculator creates time utility. If, for example, there were no holding back of wheat in the fall, if all purchases of wheat were only for immediate consumption purposes, if, in short, there were no speculation in wheat, prices of wheat would slump greatly in the fall and much wasteful utilization of wheat would follow. In the spring and early summer following, great scarcity of wheat would be experienced and the market price of wheat would skyrocket—a condition harmful for producer and consumer. Speculators may perform desirable services for the community in steadying prices, in equalizing consumption, and in reducing waste. These services are, however, chiefly performed in connection with commodities produced irregularly because of seasonal changes. Speculation on the stock market does not have quite the same effect in leveling prices. It may, indeed, induce fluctuation. Speculation may reduce certain risks and it helps to provide a definite market for commodities and corporate securities, but its chief effect is to take risks from the shoulders of the business man and place them on the professional risk-takers.

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[1] Edie, L. D., *Economics*, p. 219.

Like oil and water, the technical processes of business and speculation do not readily mix. The manager interested in production and personnel problems wishes to run his industry as far as possible on a basis of reasonable and stable profits. The speculator is not interested in technical or personnel problems; reasonable and regular profits from ordinary business operation do not constitute the goal of the speculator. He is a specialist in price fluctuations. All programs which tend to stabilize prices, regularize business, and iron out abrupt changes in demand limit the field for speculative operations. However, inventions, new methods of doing work, the stimulation of new wants, and the weakening of old desires tend to keep business from a static condition. Progress involves risk-taking and forecasting future trends. There is apparently a happy medium between fixity and extreme speculative fluctuations in the economic world.

The engineer and many business men prefer a stable price level or price changes which can be accurately forecast. They wish to make reasonable profits because of technical efficiency and managerial ability rather than because of the vicissitudes of shifting prices. Speculation and attention to the stock ticker are corroders of technical and personnel efficiency. Insurance, hedging, forecasting, and other devices for reducing or transferring risks appeal to the engineer and the modern business man.

The Wage Worker Is a Risk-Taker. The active business man or the enterpriser and the speculator are not the only ones connected with industry who face financial hazards. The capitalist or creditor and the employee also take risks. The investor or lender, even in the case of high-grade securities, takes some risk even though it may be slight. Government bonds have been repudiated. The first-mortgage bonds of well-known companies may be seriously affected by some unexpected business vicissitude. As long as a debt remains unpaid, there is some risk that it will not be paid. The wage worker receives a contractual wage; he is sheltered from many of the effects of business uncertainties; but he is forced to bear risks which are not inconsiderable—danger of unemployment, of accident, of sickness, etc. Changes in technical methods or the invention of new machinery may make useless his especial skill. The highly specialized worker, as well as specialized machinery, is in constant danger of being displaced or discarded.

Reduction of Risks. Progress in industrial and marketing efficiency calls for the reduction of business hazards and for better methods of carrying the burden of such hazards as are not eliminated. There are at least three possible courses of action which an individual or a corporation confronted with a business hazard may follow: (1) certain risks may be eliminated or reduced, (2) some may be transferred by organized speculation, and (3) others may be transferred or distributed by insurance.

Certain risks may be eliminated by business forecasting, by cost accounting which gives definite knowledge of past costs, and by the use of appliances which prevent fire, accidents, sickness, or other dangers. The building of fireproof buildings and the maintenance of excellent fire departments will reduce the risks from fire. Safeguards for machines and safety-first educational campaigns will reduce accidents in industrial plants. Intelligent forecasting may foreshadow changes in demand or in price levels and enable the business man to take steps to avoid the losses which the man who follows hunches and rule-of-thumb methods will almost inevitably experience. Risks are reduced by knowledge.

Transfer of Risks. One method by means of which the producer may transfer certain risks to the middleman or the speculator is that of producing only upon orders. An order is received by a corporation producing iron and steel products. The order is for a definite amount of a given type and quality at an agreed-upon price. Delivery is expected at a particular future date. The manufacturer immediately buys the necessary raw materials and proceeds to fill the order. Price fluctuations in the selling price of the articles ordered no longer affect the manufacturer. The firm placing the order runs the risk of loss and may have the opportunity to make speculative profits depending upon the trend of prices of the particular article. Sometimes, however, an order may be cancelled. Wholesale cancellation of orders followed the break in prices in 1921. Risks in connection with changes in wages cannot as a rule be shifted in this fashion.

A second way of shifting risks is by making purchases for future delivery. This method is often used in connection with commodities bought and sold on the large produce markets. A building contractor who has just signed a contract to construct at a definite price an apartment house may immediately buy such materials and appliances as may be required for delivery at future dates. In this manner certain risks connected with price fluctuations may be shifted to wholesalers and jobbers of materials and equipment. A manufacturer of cotton cloth might receive an order for delivery six months later. It may not be necessary to buy the cotton to supply this particular order for, say, five months. The manufacturer may shift the risk of fluctuations in the price of raw cotton by buying a future—that is, buying cotton today for delivery five months later at a definite price.

The sale of futures is an organized speculative business on certain produce exchanges. The operation of the market for futures may be illustrated by the wheat market. One set of traders, called in technical jargon "bulls," decides as the result of a study of crop and market conditions that the price of wheat will rise. They buy wheat at today's prices to be delivered at a future date. The bulls on the wheat market expect to make a profit through a rise in price enabling them to sell at a higher price the wheat which is to be delivered to them, say, three months later. Another group of traders, called "bears," believe that prices are going down instead of up. They sell contracts to deliver wheat at a future date. The bears do not have the wheat on hand which they have agreed to deliver at the future date. They have "sold short," and expect to be able to buy the necessary amount at a lower price on the market than the delivery price calls for. If their calculations are correct, they make as a profit on each bushel the difference between the delivery price and the market price. In like manner, the bulls may gain or lose depending upon the accuracy of their calculations. The net result of such operations makes for steadier wheat prices over the period between harvests.

Hedging. The practice of buying and selling futures has made possible the practice of hedging, by means of which certain enterprisers are able to shift business risks to the shoulders of speculators. Hedging consists in buying and selling in the market at about the same time so that gains due to a rise in prices on one transaction will be balanced by losses on the other. The milling industry furnishes an illustration of the use of hedging. The selling price of wheat flour fluctuates with changes in the price of wheat. The cost of the raw material is a large fraction of the production cost of flour. If a miller is converting wheat into flour and the price of wheat rises or falls considerably after he has purchased the wheat but before it is milled and sold as flour, the miller may make extra profits or suffer unexpected losses. The miller who does not wish to be a speculator may shift the hazards due to price fluctuations by using the hedging process.

A miller may buy wheat in September which he expects to deliver as flour in May. We may assume that he buys the wheat for $1.00 per bushel. He expects to sell the flour at a price sufficient to pay for the wheat, the milling costs, and the carrying charges, and also allow a reasonable profit. If the price of wheat rises by May to $1.10, and assuming that the price of flour is likewise raised 10 per cent, the miller receives an extraordinary or speculative profit equal to ten cents on each bushel of wheat. If he had practiced hedging, he would have sold short in September the same number of bushels of wheat for May delivery. Since the price of wheat has risen ten cents, he will be obliged to pay ten cents more per bushel for wheat in May than he would obtain on his contract to deliver. Thus, disregarding broker's fees, he would lose on his future the amount of the extraordinary profit gained on the sale of flour.

If, on the other hand, the price of wheat had declined ten cents per bushel, or to ninety cents, in May, the miller would have faced an unexpected drop in the price of flour equal to ten cents per bushel of wheat and his ordinary profits would be more than wiped out. But, he would gain from his future contract, as he could go into the market in May and buy wheat at ten cents less than the agreed-upon delivery price. His losses on the sale of flour would be equalized by the gain in the future transaction. In both cases his profits would be practically those of ordinary business in a period of stable prices.

Insurance. The essential feature of insurance is the pooling, or consolidating, of a large group of similar hazards. Every individual runs the risk of meeting sickness, accident, or death each and every day. Statistics compiled from past experience indicate clearly that in a large group of people—for example, one million individuals—a certain number may be expected to die or to suffer an accident within a given year, but it is not possible to predict the particular individuals in this vast multitude who will be affected. Of a million dwelling houses distributed throughout the United States we may anticipate that about so many will be destroyed by fire or by tornado during a period of twelve months, but we cannot as accurately designate the particular homes which will be destroyed. Insurance is built upon the theory of probabilities applied to a large group of persons or things.

Insurance does not eliminate risks and losses. It may stimulate activities which will, for example, reduce the danger of fire or increase longevity, but directly insurance merely shifts the burden of a pecuniary loss from one shoulder to those of a large multitude. Insurance not only reduces the intensity of the burden, but it also actually changes the character of the risk. An insurance policy provides for payment in case of loss; the risk is transferred. Each one of a large number of insured persons pays a definite amount yearly, called a "premium." In case of a fire which destroys a building that has been insured, the loss is paid for out of the sum accumulated from the regular premium payments made by all the members of the insured group. The possibility of a great loss falling upon one person is by insurance changed into the certainty that small and regular losses will be experienced by all insured persons. As was indicated above, the burden of certain risks is carried coöperatively. Risks are diffused and individual losses are paid regularly as premiums. In this fashion fire insurance, for example, becomes a regular and calculable expense of doing business. The same fundamental principles which are applied to fire insurance are used in life, accident, and all other forms of insurance. In case of a new form of risk about which as yet little statistical information is at hand, the insurance company is obliged to fix its premium rates somewhat blindly. The usual method is to place a very high rate upon such hazards until experience has shown that a lower rate is feasible.

Not all risks are insurable. In cases where there are a large number of distinct risks so that a fairly constant average of losses is maintained over a period of time, the principles of insurance may be applied. The statistics of losses may be gathered and average losses determined over a period of years, after which it is feasible to develop an insurance program for that type of risks. The hazards must be sufficiently common that the law of averages may be applied. Until comparatively recent times a scientific basis for insurance was not possible. In the first place, the gathering and interpreting of statistical information was not well organized, and, in the second place, as long as wars and pestilences were of frequent occurrence, careful calculation of risks was not feasible.

While insurance seems to have originated as a gamble, life and fire insurance companies have such a mass of statistical data as to risks that the business has been placed upon a nonspeculative basis. The insurance company that distributes its risks over a wide area so that a great catastrophy in one locality will not place upon it such an unusual strain as to bankrupt it, is taking little extraordinary risk. Insurable hazards are capable of careful calculations. Indeed, the person who refuses to insure his home may logically be accused of gambling that a fire will not occur on his premises. Adequate insurance has its psychological effect of reducing worry; and worry digs many an early grave.

The origin of modern insurance seems to have been connected with certain loans or speculative ventures in connection with the voyages of ships in the thirteenth and fourteenth centuries. At that time an ocean voyage was a perilous undertaking. If the ship and its cargo reached its destination, large profits might be made, but many a ship was lost at sea or was captured by pirates. Loans were made upon the ship and its cargo. If the ship made a successful voyage, the loan was returned with interest. If it was lost, the loan was not repaid. In the absence of any accurate knowledge as to risks, this procedure amounted to betting that the ship would or would not be lost. The first fire insurance company organized upon a firmer basis than random speculation was formed soon after the Great Fire of London in 1666. Life insurance as a business seems to have originated about a century later.[1]

From these humble beginnings, practically as a gambling proposition, insurance has grown to be one of the large business enterprises of today resting upon a solid foundation of accurate data as to hazards. Insurance in the United States is subject to special governmental regulations in regard to reserves and other features of the business. Life and fire insurance constitute the most important forms of insurance, but any form of calculable risk may be made the subject of insurance—sickness, accident, burglary, tornado, hail, breakage of plate glass windows, etc. Social insurance is a form of compulsory insurance for the protection of workers against industrial accidents, sickness, invalidity and old age, and unemployment. This special form of insurance will be considered elsewhere.[2]

QUESTIONS

1. Every business enterprise involves speculation. Explain.
2. May speculation reduce price fluctuations? Prove.
3. What is hedging?
4. What is a "future"?
5. Speculation has been called a corroder of efficiency. Why?

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[1] Ely, R. T., *Outlines of Economics* (5th ed.), pp. 641–642.

[2] Chapter XXX.

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CHAPTER XXVI

POPULATION AND THE INDUSTRIAL PERSONNEL

The Malthusian Law of Population. An English writer, T. R. Malthus, writing in the opening years of the nineteenth century, developed a famous "law of population." Malthus lived in England at a time when poverty was very evident. The population apparently had been increasing more rapidly than the means of obtaining food and other necessities. It was felt that the farming population could not produce enough food for "the multiplying numbers which manufacture and urban life in general promised to keep busy." The much-discussed and much-criticised Malthusian theory presents a very pessimistic outlook for mankind; poverty is assumed to be the inevitable fate of the masses of mankind. The population tends to increase more rapidly than the means of subsistence. This so-called law is a part of the classical economist's theory that certain economic and social changes are inevitable or automatic—that they are outside or beyond the realms of human control. The assumption, now generally held to be untenable, was made that the birth rate was uncontrollable. Emphasis was placed upon the view that prosperity and high standards of living would lead to a rising birth rate and sooner or later result in overpopulation and poverty. It was argued that population would increase wherever and whenever the means of subsistence increased unless prevented by powerful checks. Malthus did, however, recognize certain preventive checks—late marriage, control of the passions, etc. The positive checks in early generations were such dire calamities as famine, pestilence, war, cataclysms of nature, and the practice of infanticide. In this country and in certain other countries experience since the time of Malthus indicates that persons accustomed to a fairly high standard of living are likely to delay marriage and to have a lower birth rate than those accustomed to a lower standard of living. The birth rate and the death rate are subject, within broad limits, to modification and control, but the human species possesses great potential possibilities for population growth.

If material progress is to continue, population must increase more slowly than the wealth of the group. When the population of a given area is very small, there can be little division of labor and production per capita is of necessity limited. Our interest primarily is centered upon productivity per capita rather than upon total productivity. In very densely populated nations the point of maximum productivity per person is passed, output per capita tends downward, and poverty is the lot of the rank and file. If the population of a given area becomes too large, or if it becomes too small, the per capita output will tend to decrease. There is an optimum of population for a given country with a particular development of natural resources, capital, skill, and scientific attainment. The optimum of population will allow the largest possible per capita productivity, and with proper distribution of wealth and income will lead to a high degree of comfort.

Growth of Population. The corner stone of the Malthusian theory seems to be true. During the century following Malthus the population and the productivity of England and of the Western World increased rapidly. In 1800 the total population of the world was approximately 850,000,000. In 1930, only one hundred and thirty years later, the total was estimated to be at least 1,800,000,000, or the population of the world had more than doubled. In other words, the world's population grew very slowly up to the end of the eighteenth century. Since the opening of the nineteenth century, the rate of population growth has been relatively rapid. It has been estimated that the population of Europe increased about 35 per cent from 1600 to 1700; 50 per cent, from 1700 to 1800; and over 125 per cent from 1800 to 1925. During this latter period about 35,000,000 people emigrated from Europe to the United States. The population of this country has increased from over 5,000,000 in 1800 to approximately 120,000,000 in 1929, but the rate of increase per decade is undergoing reduction. From 1900 to 1910 the increase was 15 per cent, but from 1850 to 1860 it was 36 per cent. The population of the United States is now increasing about 1,500,000 per year. As a large percentage of the world's population is not, even in recent decades, officially recorded, population estimates are liable to exhibit a considerable percentage of error.

The birth rates of nearly all peoples of the Western World show a marked tendency downward. According to Professor Willcox, the decline in the birth rate of native Americans began about 1812. In France the decline started before 1850. Nearly all other European countries attained their highest birth rates before 1890. The death rate has also been greatly reduced. According to Professor East, the daily bulletin of world population statistics reads: births, 150,000; deaths, 100,000.[1] The world is gaining in population at the rate of 50,000 daily. It is estimated by students of population statistics that in 1950 the world population may reach 2,500,000,000 and that of the United States, 150,000,000. The latter figure represents nearly the limit that the country will support under our present standards of farming, and there are definite limits to our natural resources, such as coal, petroleum, and iron ore. Professor East has issued this warning: "The first requisite for the convalescence of the sick old world, therefore, is restricted population. With it mankind may show a progressive evolution of body, mind, and soul; without it the door is shut." Another student of population problems has recently written a book entitled *Standing Room Only?* [2] Jungle, forests, woodland streams, solitary places, and wild life begin to disappear as the pressure of population gradually becomes felt. Increased effort in getting a living will be necessary, more and more of thought and effort will be diverted into the job of getting a food supply, greater emphasis will be laid upon frugality, and comforts and luxuries will gradually become less and less attainable. With steadily increasing population the United States will ere long stand at the "crossroads." The birth rate must be reduced or the standard of living lowered. It is, of course, possible that science may offer new means of pushing the danger somewhat into the background for the near future, but sooner or later we shall face the problem of declining comfort, unless the population becomes stationary. The hope of conquering poverty will be futile unless the rising tide of population is halted.

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[1] East, E. M., *Current History*, July, 1926.

[2] Ross, E. A.

The American standard of living, with its emphasis upon a living plus, or of "jam on the bread," is only possible because we are still able to produce efficiently. Let the population increase to much greater density and we confront the law of diminishing returns. This law cannot be annulled. Sooner or later, with steadily increasing population, more and more of our efforts will of necessity be directed toward the prosaic job of getting a meager living for a large and drab population, facing poverty and privation. This is not a pleasant picture to paint, but its outlines seem fairly clear and distinct.

The quality of a population also has certain important economic aspects. A prosperous nation, in addition to a reasonable density of population, abundant natural resources, good climate, and other physical factors, will be peopled by an alert and capable type of people. Prosperity cannot be achieved by a group of weaklings or by a defective stock. Under modern conditions wars kill off the vigorous and virile, while medical science and humanitarian programs tend to preserve the weaker who, under the sterner conditions of primitive and pioneer life, would have been eliminated. Many neurotic and defective persons are allowed to marry and add to the total of this dangerous and undesirable group. As yet few steps have been taken in the direction of "negative eugenics."

Growth of Cities. Along with the improvement of transportation facilities, the increasing use of machinery and power, and the advances in sanitary and medical science have come the rapid growth of urban populations. The cities of ancient and medieval times were comparatively small in size and few in number. They were unattractive and highly insanitary. The death rate in the cities of earlier generations was excessively high. Today the typical American is an urban dweller. The frontiersman and the farmer are being replaced by the urban and suburban type. Practically all of our increase in population since the turn of the century has been added to the cities. On

January 1, 1929, the American farm population, as estimated by the Federal Bureau of Agricultural Economics, was 27,511,000—the least in twenty years. Over one-half of the population of the United States now lives in cities and towns of at least 2,500 inhabitants. The cities of Europe have likewise grown with great rapidity since 1800.

The difficulties of living in cities show indications of increasing in spite of improvement in technical knowledge. The density of population is excessive in many cities, and, when relieved by the march to the suburbs, the transportation problems are multiplied. Urban taxes and cost of living have mounted rapidly in the recent decades. Under the surface of important city streets is found a bewildering maze of pipes, wires, conduits, and sewers. Modern city life is complex and extremely interdependent. American cities have nearly all developed in a haphazard fashion without a plan for making them beautiful, efficient, or livable. We have developed "no horizontal art of city planning." "The new cities of the Western World are not organic centers but inefficient mechanical agglomerations."[1]

As the population becomes more and more dense, social pressure, mass industrial methods, and urban life become of greater and greater import. People begin to lose individuality and become more and more stereotyped or standardized. Institutionalism, corporation-ism, or group-ism rises higher and higher. The independent pioneer, the jack-of-all-trades, neighborhood friendliness, the separate family home, and the family gathering around the fireplace in the evening are replaced by the city dweller, the specialized worker, the anonymity of the large city, the apartment house, and the commercialized amusement place.

Immigration. In primitive times groups of men, women, and children wandered from place to place in search of hunting grounds. Later came invasion, conquest, and colonization. Not until comparatively recent times does a movement of men and women in a thin stream from one organized community to another take place. This form of migration is called "immigration" in the country to which migrants come, and "emigration" in the home country which they leave behind. After the period of American colonization was ended and the government of the United States organized, immigration was insignificant until the thirties of last century. The so-called immigration problem has appeared as the world population increased. It now seems clear that, unless confined by transportation difficulties or legal restriction, population tends to move from population centers of great density to countries of lower population density and of relative abundance of natural resources.

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[1] Chase, S., *Men and Machines*, p. 247.

The United States has been a country of immigration. From 1820, the year in which our immigration statistics were first recorded, to 1925 over 36,000,000 immigrants came to our shores. Of this total nearly 11,000,000 came in the last sixteen years of the period. As a fraction of this total returned to their home lands, the net immigration is less than the figures given above. The stream of immigration has not moved with regularity. Roughly speaking, the flood tides of immigration occurred in periods of prosperity. The stream usually dwindled as business depression appeared. Immigration is a matter of pushes and pulls. Bad times and religious or political persecution in the home land tend to prod groups and individuals into seeking homes and fortunes elsewhere; good times and religious and political freedom in other lands draw immigrants to new homes. The peak year of immigration into this country was 1907; in that year over one and one-fourth million immigrants were admitted. Before 1880 nearly all immigrants coming to the United States came from Northwestern Europe. About 1890 the sources of the stream of immigration shifted to Southern and Eastern Europe. This change was almost coincident with the disappearance of free land and the rapid growth of factories and cities in this country. The days of the pioneer and the backwoods farmer were ended; industry was calling for the unskilled worker to do the rough hard work of constructing railways, mining coal, and operating machinery in factories. In 1907, of that mighty horde of immigrants which sought homes in the United States, approximately 75 per cent were from Southern and Eastern Europe, but the employers of the opening decades of this century were predominately of the older American type. This differentiation complicated the American labor problem; the large influx of immigrants into the wage-earning group introduced added elements of friction. The restrictive measures of recent years may aid in preventing further accentuation of racial and national differences in the employer-employee relationships.

Although from time to time much antagonism has been manifested toward immigrants, our traditional policy has been freely to admit aliens wishing to find homes within the borders of the nation. Americans were somewhat proud that this country was a haven of refuge for the poor and oppressed of other lands. The first general immigration law was passed in 1882. Several additional measures were placed upon the federal statute books between 1882 and 1917. In the latter year the literacy test was made a prerequisite for admission. The aim of the legislation enacted between 1882 and 1917 was selective; undesirables were to be denied entrance. Among the excluded groups were illiterates, convicts, defectives, persons afflicted with contagious diseases, beggars, paupers, persons suffering from chronic alcoholism, and contract laborers. Chinese laborers have been excluded since 1882; under a gentlemen's agreement Japanese laborers were also excluded. The Act of 1917, by a "geographic delimitation," practically excluded all Orientals except Japanese. In 1921 the first quota act was passed. Clearly under the quota laws restriction is added to selection. The existing selective acts were not repealed, but the number of aliens of any nationality lawfully admitted in any year was limited to 3 per cent of such nationality already resident in the United States, according to the census of 1910. In 1924, the second quota law was passed. The quota rate was reduced to 2 per cent annually, according to the census of 1890. The total number of immigrants to be admitted annually from quota countries was between 160,000 and 170,000. The change in the census used as a basis for the quota was due to a desire to reduce the immigration from Southern and Eastern Europe. Orientals not eligible to citizenship were excluded. The native-born citizens of Canada, Newfoundland, Cuba, Mexico, and the independent countries of Central and South America were not included in the quota provisions; only the selective laws apply to immigration from Mexico and other independent countries of North and South America. In 1929, for the 2 per cent quota was substituted a "national origins" quota. The number annually admitted from countries covered by the quota legislation was reduced to approximately 154,000. This change in the quota basis decreased the quota of Germany and the Irish Free State. It increased considerably the quota of Great Britain. A few other minor changes in the quota also resulted from the modification of the law. The quota laws have resulted in a marked reduction of immigration from Europe and Asia, but the immigration from Mexico has increased. The World War and the restriction of immigration since 1921 have also induced a large migration of Negroes from the South to the industrial cities of the North.

The Restriction of Immigration. Why did the American people depart from their traditional immigration policy of selection? Three major reasons may be advanced for this striking modification in public opinion. (1) The American people are beginning to realize that the continent is no longer a new and unexploited territory into the vast areas of which a large flood composed of a mixture of peoples may easily be absorbed. Conservation of natural resources and restriction of immigration are not unrelated social phenomena. Both are indications that our pioneer period is passed. Because of social inertia a generation elapsed before we became interested in conserving resources and in the population question. Until recent decades it seemed to all Americans that this continent was so vast and so blessed with resources that it could for centuries be the asylum for the poor, weak, and oppressed of the world. Now, we are hearing about the dangers of over-population. (2) In recent years authorities have been insisting that more stress should be placed upon the importance of heredity. Americans have been prone to believe that individuals and groups of people were the products chiefly of environmental conditions. The biologists and our experience during the World War have resulted in a partial revision of this confident judgment. The War made it clear that the famous American melting pot was not functioning as we had fondly hoped. Race prejudice, or the feeling in favor of comparative homogeneity within a group, is powerful but it is not a product of reason. Race prejudice is found in practically all parts of the world, and it is old. The Greeks and the Egyptians of the Ancient World exhibited racial prejudice. Race prejudice is not instinctive; it is largely the result of some social menace. The emphasis upon heredity and the intensification of racial and national prejudice are factors causing the trend toward the restriction of immigration. (3) Until the beginning of the World War, the United States obtained its supply of unskilled labor in a large measure through immigration. "Up to the War, roughly speaking, three-quarters of our unskilled mine, mill, factory, and construction labor were bred abroad in the environment of autocracy."[1] While emphasizing the importance of education, we received a large stream of poorly educated and trained immigrants. Managers are now substituting machinery for the unskilled laborer. The editor of a technical journal has well expressed the view that we no longer need to admit a stream of unskilled workers. "A preponderance of crude labor, like a preponderance of wheelbarrows, shovels, and other inefficient and primitive tools in a modern factory, is an admission of managerial inferiority. . . . Invention has already put the wheelbarrow and the shovel out of the running. . . . The unskilled laborer is not an asset, but a liability."[2]

Is the Restriction of Immigration an International or a Domestic Problem? A well-defined conflict of interests between countries of immigration and those of emigration may readily be discerned. A country of emigration wishes to secure many attractive outlets for its surplus population and to retain as far as possible a firm political and moral control over the groups leaving the home country. The authorities of a nation of emigration often insist upon considering the emigrants as semicolonists rather than as immigrants to another country and governmental jurisdiction. A country receiving immigrants insists upon the right to select such individuals as are held to be desirable and to absorb them as soon as possible into the citizenry of the nation. Emphasis is placed upon the desirability of an early and complete break with the country from whence the newcomers originate. The United States desires its immigrants to cease being hyphenated Americans.[1]

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[1] Gilbert, C. G., and Pogue, J. E., *America's Power Resources*, pp. 4, 5.

[2] *Industrial Management*, November, 1922.

Countries of immigration are prone to insist that the regulation of immigration is a domestic policy; countries of emigration more willingly accept the view that interference with the free flow of people should be a matter of international policy. Is it desirable that a nation interfere with international population movements or should an open-door policy be adopted? If interference becomes the accepted program, in whose interest is it to be enforced? Has a land-grabbing people the right to erect barriers against the people of an overcrowded area? Is a country of dense population, high birth rates, and low standards of living justified in demanding an outlet into a region of less density of population, lower birth rates, and higher standards of living? May a people maintaining a high birth rate justly insist that others move more closely together in order to make room for their surplus population? Is it reasonable to expect the American people, maintaining a fairly high standard of living, to adopt the theory that a high birth rate and a dense population give the inhabitants of another part of the globe the right to migrate to whatsoever portion of the earth the latter may desire? If this theory be accepted as a matter of international law, will not the standards of living of the entire world tend downward toward the level now occupied by certain populous nations? The hope of maintaining high standards of living in America and elsewhere may conceivably depend upon the erection of barriers to the free movement of populations. The nations having fairly high standards of living and without great density of population cannot be expected to become asylums for the surplus populations of densely populated countries. The answer of the American people is that immigration restriction is a domestic policy; but insistence upon this program may lead to serious friction in the not distant future.

The Nation's Working Force. On July 1, 1928, the population of continental United States was estimated to be 119,-

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[1] See article in *Edinburgh Review*, October, 1925.

306,000.[1] Of this number, 83,600,000 were fifteen years of age or over. The gainfully employed were estimated to number 46,580,000. This army of gainfully employed supports the remainder of the population—72,726,000. The census of 1920 enumerated 8,550,000 women as gainfully employed. This number was 21 per cent of the total number of females over ten years of age, and it constituted slightly more than one-fifth of the total number gainfully employed. The gainfully employed are laborers, clerical workers, skilled craftsmen, managers, proprietors, the professional group, and personal servants of various types. One great group of workers is omitted by the census from the list of gainfully employed—the wives and mothers who manage their own households are not included.

The productivity of a nation's working force depends upon the number and characteristics of the individuals, their training, proper selection, and wise direction under excellent working conditions. Productivity also is dependent upon good managerial direction, adequate capital, scientific knowledge, abundant and diversified natural resources, good climatic conditions, a stable government which conserves and develops natural and human resources, and a multitude of other factors. A change in the quantity of population does not always mark a corresponding change in the supply of labor. Restriction of immigration into the United States is tending temporarily to increase the number of men and women in the older age classifications. A recent study made by a committee of the National Association of Manufacturers indicates a shift in the age distribution of workers between 1923 and 1928. The figures are based on an analysis of 1,189,000 workers in 1923, and of 2,632,822 in 1928. The percentages in the age groups 16 to 20, and over the age of 40, were found to be as follows: [2]

	1923	*1928*
16–20	10.86	7.76
Over 40	31.88	33.74

The Migratory Worker. There are, roughly estimated, between 1,500,000 and 2,000,000 workers who may be designated as migratory workers. They are in the main drifting, restless, homeless, propertyless men. They work in the harvest fields, in fruit orchards, on construction jobs, in lumber camps, and in other places where irregular and seasonal demands are made for workers. The migratory workers constitute a sort of "flying squadron" which rushes from place to place doing emergency service. We treat them harshly and often bitterly condemn this class of laborers. They are rude, impolite and strenuous. Their philosophy and that accepted by the average stay-at-home property owner of the middle class are very, very dissimilar. The migratory worker usually places little emphasis upon property rights; he owns little or no property except a few personal belongings.

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[1] National Bureau of Economic Research.

[2] *Monthly Labor Review*, May, 1930, p. 56.

The migratory workers soon degenerate into the tramp class; tramps travel but try to avoid work. The irregular or migratory workers and tramps are menaces to organized society, but repression is not an adequate cure for the evil. Many a migratory worker is the finished product of irregular employment and aimless seeking for a job. He is the inevitable result of irregularity of employment, low wages, and harsh treatment. Opportunity for regular work, living wages, sympathetic treatment, and an opportunity for home life will reduce the number of men drifting into this undesirable group. But until the demand for workers on the farm, in the fruit orchards, in construction work, and in lumber camps is made fairly regular throughout the year, the migratory worker is needed.

Questions

1. Do you accept the Malthusian theory of population? Why?
2. Is an increase in population always and everywhere desirable? Why?
3. Is restriction of immigration purely a domestic problem? Why?
4. Is the migratory worker an undesirable citizen? Why?

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CHAPTER XXVII

ORGANIZED LABOR AND EMPLOYEE REPRESENTATION

Organization. In all walks of life organization is deemed necessary to obtain results. A political party represents an organization of voters; a fraternal society and a corporation are types of organization. Associated activity is the order of the day. Workers, like other individuals, form definite and formal groups called labor organizations. The purpose of wage workers in thus uniting is to gain higher wages, better working conditions, and better treatment while on the job. The union tends to give the workers more of independence and of willingness to stand against unfair demands on the part of employers. Unionists are not humble, docile, and contrite of spirit. However, few workers of today hope to become employers or independent business men. Workers unite to improve their status as wage earners.

Early Labor Conditions. Primitive peoples were hunters and fighters. As generations passed, some became herders and shepherds and others, agriculturists. The advance of a primitive people from the hunting or the pastoral stage was accompanied by revolutionary changes in the home, industrial, military, and social life. The character, ideals, customs, beliefs, and training of the people suffered gradual, but important, transformations as inevitable results of new work, discipline, and experience, which exert silent and constant pressure upon each and every member of the primitive tribe or horde. In the agricultural stage constant migration is replaced by relative fixity of habitation. Personal property, which is an impediment to a pastoral people, becomes a desirable acquisition of the agriculturalist. The rude hut is built or improved. Property in land begins to emerge and slavery arises. New ideals and customs characteristic of an agricultural people slowly displace those built up among hunters or herders. A multitude of social, political, military, commercial, and religious changes are the natural and inevitable results of modifications in the industrial life of the people. The progress from slavery to serfdom and from serfdom to the modern wage system was preceded by changes in the density of population and in the industrial methods employed in the community.

Before the free wage earner appeared on the stage of history, slavery or serfdom was the lot of the worker. Slavery and serfdom were harsh means of forcing the hunter and fighter, after generations of experience, into the ranks of the workers. Labor's place in history is definitely marked by the institutions of slavery and of serfdom. Only in recent generations, after repeated multiplications of the world's productive capabilities, has labor been given a place of theoretical equality with military service and professional practice. The labor union aims to uphold the honor and dignity of labor with the hands, to give practical significance to ethical ideals as to manual labor. Precedent and dominant class interests are strong forces acting in direct and unceasing opposition to the aims and ideals of the labor movement. Precedent assigns labor to a lower social and political plane, while progress with the wand of industrial efficiency ever points upward and onward toward release from ceaseless toil and social degradation.[1]

Early Labor Organizations in the United States. When the colonists from Europe arrived upon this continent, they found an undeveloped country with great natural resources and a scarcity of capital and of workers. The need for workers was so great that slavery, which had disappeared in the home lands, was introduced in the case of the Negro, and a temporary bondage, indentured service, was used for poor white workers who were kidnapped or induced by less objectionable means to come to the new country. Wage workers were few in Colonial America. In the last years of the eighteenth century a few local and short-lived labor "societies" were formed by printers, cordwainers (shoemakers), and a few other groups of skilled workers. A labor society was similar to what is now called a "local."

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[1] See the writer's *Education and Industrial Evolution*, pp. 150–151.

In the opening years of the nineteenth century a few isolated labor societies appeared from time to time. These groups usually emphasized benefit features for their members. In the "twenties" of last century, organization became more prevalent. In the latter part of that decade, in two or three cities, trades' unions appeared. A trades' union was similar to the city federation of today. It was the first loose grouping together of locals for mutual benefit. Soon the workers who had recently been given the right to vote in certain northern states went into local politics in New York, Philadelphia, and Boston. The local labor parties were soon eliminated and the labor movement came to a standstill. About 1833 prices and the cost of living began to rise very rapidly. The workers of the Atlantic Coast cities found that their real wages were much less than formerly. Quickly, in many cities and towns, local unions were organized. Five national unions, tying the locals of particular trades together, and even a General Trades' Union of locals, trades' unions, and national unions were formed. Under the pressure of rapidly rising prices working men were temporarily welded together in labor organizations. The severe panic of 1837, however, practically wiped out unionism in the United States.

During the decade of the forties few traces of labor organizations are discernible. About 1850 the beginnings of the permanent unionism of today appeared. One national union, the International Typographical Union, traces its inception to 1850–1852. During and immediately following the Civil War labor organizations developed and grew in numbers and importance. More national unions were organized and another national grouping of different unions, called the National Labor Union, was formed and lived for several years. The panic of 1873 reduced the total union membership and destroyed several national unions; but, unlike the panic of 1837, it did not entirely extinguish American unionism.

Labor Organizations. The primary unit in a labor organization is the local. The local is made up of workers of a craft or trade in a given locality, or of all the workers in a factory or mine. The former is a trade and the latter an industrial union. Each local is a democratic unit. At its regular meetings matters of common interest are discussed. The officers usually consist of a President, Vice-President, Secretary, and Treasurer. The offices of Secretary and Treasurer are often united. There are also such standing committees as Finance, Grievance, and Executive. As a rule, none of these officers are salaried. Certain locals, as in the building trades, may have business agents or walking delegates who are paid salaries. Their work is in connection with the relations between employer and employee. Except in the case of certain recently formed organizations, locals are joined together into a national unit which includes all the trades of that industry found in the United States and sometimes certain Canadian locals. The International Molders' Union is the national union of molders. It includes locals of molders in this country and in Canada. A national union usually has a salaried President and a Secretary who devote all their working time to the job. One hundred and four of these national unions are now loosely affiliated in the American Federation of Labor. A small group of national unions, of which the Railway Brotherhoods and the Amalgamated Clothing Workers are the leading representatives, are not affiliated in the American Federation of Labor.

A union man, therefore, belongs to his local, which is a part of a national union, and the latter in turn may be a part of the American Federation of Labor. Dues are collected by the local and a portion sent on to the national, which in turn pays dues to the American Federation of Labor, in proportion to membership. In many national labor organizations the power to declare strikes and to determine the attitude toward many policies regarding the relations between the union and the employer is vested in the central body rather than in the locals. As in the government of the nation, the tendency has been to strengthen the central body at the expense of local government or organization.

The Knights of Labor. The General Trades' Union of the thirties of last century and the National Labor Union of the sixties were premature and ephemeral attempts to form a federation of local and national unions after the fashion later carried out more effectively and permanently by the American

Federation of Labor. The most spectacular of all American labor organizations is the Knights of Labor, which was organized in 1869, flashed into power and prestige in the eighties, and then went into a rapid decline. The Knights of Labor was at first a secret organization. It took into its membership all types of workers—unskilled and skilled, professional men, and even business men who were sympathetic with the cause of organized labor. Trade and craft lines were in a large measure ignored. The Knights of Labor was a mass organization which had a membership in 1886 of 600,000 to 700,000 members. This conglomerate aggregation exhibited little solidarity and could not be long held together as a stable organization. As it declined, the American Federation of Labor, which recognized the importance of craft lines, grew in power, prestige, and membership.

The American Federation of Labor. The American Federation of Labor was organized under a different name in 1881; it assumed its present name and form in 1886. The Federation, unlike the Knights of Labor, is a loose federation of unions; it is a union of unions. A union bricklayer, for example, belongs only indirectly, through his local and his national union, to the American Federation of Labor. The Federation in 1930 was composed of 104 national unions which included 29,226 locals, 49 state federations of labor, 804 city federations, 4 departments, and 348 "local trade and federal labor unions" not yet affiliated with a national union. The control of the American Federation of Labor is practically vested in the national unions. Nearly all of the votes at the annual convention are cast by representatives of these bodies. The Federation is primarily an advisory body. The national unions are self-governing. The American Federation of Labor cannot call a strike; it cannot determine the policies and methods of the affiliated nationals. It does try to settle disputes between unions and to get legislation passed or defeated. It helps in the work of organization and of spreading propaganda in favor of organized labor.

The official membership of the American Federation of Labor is equal to the number of unionists in the national unions and in the local trade and federal labor unions for whom a per capita tax is paid into the treasury of the Federation. Members on a strike are not counted because dues are not demanded from strikers. Some national unions may dodge paying the per capita tax on new members and some nationals appear to report and pay the per capita tax on a fixed number year after year. According to the official figures, the membership of the American Federation of Labor passed the half-million mark in 1900, the million mark in 1902, and surpassed one million six hundred thousand in 1904. Then followed a period of marking time. Not until 1911 was the 1904 membership equaled. The high-water mark to date, of four millions, was reached in 1920. In 1926 the reported membership was reduced to 2,803,966; in 1930, it was 2,961,096. A small fraction of this membership is located in Canada. The total membership of labor organized in the United States, including such unions as are not affiliated in the American Federation of Labor (in 1930), may be conservatively estimated to be less than four millions. A much smaller percentage of the total number of wage workers are members of labor organizations than is the case in several European nations, Australia, and New Zealand. In the United States unionism is fairly strong in the building trades, printing, certain parts of the clothing industry, railway transportation service, and in a few other lines of skilled service. American unionism is weak, or non-existent in steel, oil, textile, food, automobile, metal trades, rubber, and retail service. Until 1929 little attention was paid to organizing the workers of the South. Efforts to attract women workers and youthful workers into labor organizations have been half-hearted. On the other hand, about one and three-quarter million workers were included (1929) in employee representation plans. American unionism seems to be marking time in regard to membership, percentage, and enthusiasm.

The American Federation of Labor is not a revolutionary organization; it is not interested in overthrowing the present political or industrial order. The Federation and its affiliated national bodies practice "business" unionism. They advocate collective bargaining with the strike and boycott as weapons to be used if an agreement cannot be reached. The leaders of the Federation have been somewhat proud of their step-by-step or opportunist policies which, they confidently assert, have led to a higher level of wages and better working conditions. This method is held to be superior to the more definite and distinct goal of radical groups. Selected by the delegates to the annual convention, the officials of the Federation are usually reëlected year after year. With the exception of one year, Samuel Gompers was the president from 1886 until his death in 1924. William Green, then a Vice President, became President and continues to hold that office. Frank Morrison has been Secretary of the Federation for a long term of years. The annual convention is controlled by a group of well-paid officials who look and act like business men.

The Industrial Workers of the World. This is a labor organization frankly committed to revolutionary aims and methods. Organized in 1905, its membership has always been numerically small and unstable. While its leaders have hoped to draw workers, skilled and unskilled, into its ranks, its chief appeal has been to the drifting or migratory worker of the harvest fields, construction work, and the lumber camps. The radical, restless, propertyless, homeless, and voteless are attracted by an organization which promises a revolution soon which will overthrow the present order and establish some sort of Utopia for the rank and file of workers. As its name indicates, the craft form of organization is rejected. According to the philosophy of these radicals, a labor organization should include in a compact group all the workers employed in a particular ship, mine, or store. These local groupings of workers would then be tied together into departments, these in turn to be subordinate to the central organization chosen by the entire membership.

The Industrial Workers of the World do not believe in going into politics; they would "strike at the ballot box with an axe." The organization is not willing to make agreements with employers. The middle class is held by these radicals to be a national "pestilence." Practically all that the American middle class cherishes is derided by the followers of the Industrial Workers of the World and also by the Communist group. They are not adverse to the use of violence. Frequent short strikes, interspersed with a skillful sabotage, are advocated for the purpose of harassing the employer. The general strike that would tie up all industrial activity is also a weapon favored by the left-wing unionists. The members of the Workers' (Communist) Party are as bitter in their denunciation of the present order as the Industrial Workers of the World, but they have organized a party and usually try to "bore from within" the existing unions instead of forming a separate organization—that is, they endeavor to get control of locals or of national unions now organized.

Demands and Methods of Labor Organizations. A labor union is a means to an end. It is formed and supported by wage workers in order to obtain higher wages, a shorter working day, and better working conditions. Collective bargaining is the prime aim of a labor organization. By collective bargaining is meant the bargaining as to wages and working conditions, for a group of union men, by representatives of the workers. The individual and unorganized worker is clearly at a disadvantage in bargaining with an employment manager of a large corporation. A union official may have greater knowledge of the labor market. He cannot be fired by the employer, and, if an agreement is not reached, a number of workers will walk out, interfering with the work of the factory. The strike and the boycott are weapons which the union uses in case a collective bargain or agreement cannot be reached. The collective agreement fixes the conditions under which union workers will accept employment for the next year or more.

Union workers often make many arbitrary and unreasonable demands, precisely as do many employers. These arbitrary demands are fundamentally due to a fear that workers will work themselves out of jobs or that the union will be weakened unless it adopts these protective measures. Some union men, and others, go slowly or restrict output to piece out a job in industry in which work is irregular and in which there is much temporary unemployment. A shop closed to non-union men is sometimes demanded to prevent an employer cutting wages in a piecemeal fashion—nibbling the wages. Unions fight unions in regard to jurisdiction over certain kinds of work in order that the winning organization may be assured of more work and prestige for its members. An analysis of the reasons for many of the irritating union demands and usages will disclose a fear of loss of jobs and of income. Unionism is likely to be at its worst in irregular industries and in plants whose managers are arbitrary and unsympathetic in their relations with the rank and file of workers under their guidance.

A strike is a concerted refusal of wage workers to work until certain demands are complied with. The strikers consider the vacated jobs as their jobs. The strike is warfare in the industrial field. A modern substitute for the strike and the boycott is the trade agreement and arbitration. The trade agreement is a collective bargain made between an employer or group of employers and the representatives of a union or of a group of unions. In the stove industry a definite trade-agreement system has been used since 1891. In the clothing industry the system has operated very well for several years. The Baltimore and Ohio Railway plan, used also by other railways, is an agreement between the railway and a group of unions composed of men working in the railway shops. This plan has little to do with grievances; it is a coöperative plan providing for regularization of the work in the shops, for higher wages, and for more efficient work. The formal agreement is an example of constitutionalism in industrial relations. In case of a dispute as to the application of the terms of the agreement in a specific case, provisions are usually made for consideration of the matter by an impartial arbitrator.

If an agreement as to the terms of the labor contract cannot be reached, instead of resorting to industrial warfare, the interested parties may be persuaded to use a process similar to the court system, called "arbitration." Arguments are presented by representatives of the workers and of the employers in regard to the reasons for and against any change in wages, working hours, or other conditions of employment. The Board of Arbitration should analyze and weigh the arguments and facts presented and finally make a decision as to the terms of the new labor contract in the particular case. These awards usually are intended to extend over a period of from one to three years. There are two distinct types of arbitration: (1) to determine the terms of a trade agreement, and (2) to determine the application or significance of the terms of a trade agreement. The trade agreement and arbitration will lead to a demand for the facts in regard to the industry concerned. Uniform bookkeeping and more efficient management are likely to be demanded by the workers. They will begin to insist that the consequences of bad business management shall not be shifted to them in the form of low wages.

Employers' Associations. Employers and business men form a great variety of associations, but an employers' association is technically one which deals primarily with the relations between employers and their employees. In many respects these associations bear a resemblance to labor organizations. A city employers' association such as the Associated Employers of Indianapolis, a national organization of which the National Founders' Association is an example, and a federation of associations, such as the National Industrial Conference Board, which is chiefly devoted to fact-finding and the dissemination of information regarding working conditions, are comparable to corresponding groups in the field of organized labor. Certain employers' associations are opposed to organized labor and refuse to deal with its representatives or to recognize a union. The National Association of Manufacturers is of this variety. Others will recognize organized labor and make collective bargains. The Manufacturers' Protective and Development Association, formerly called the Stove Founders' National Defense Association, is an example of the second variety of employers' associations. It has successfully bargained with the International Molders' Union since 1891.

As an illustration of the parallelism between organized labor and employers' associations, it may be pointed out that the unionist feels that the non-unionist is a parasite since he refuses to help carry on the struggle to better working conditions. Likewise, an employers' association declares that "non-members of the association are evading an individual civic responsibility in their failure to help share the burden" of maintaining the organization which is a "bulwark of strength" against the demands of labor. The weapons used by employers' associations that are hostile to organized labor are similar to those used by militant labor organizations. The organized employers use the lockout, the blacklist, and spies, while labor resorts to the strike, the boycott, and picketing. Employers' associations, as well as labor unionists, lobby in an endeavor to obtain favorable legislation or to block passage of laws believed to be inimical to the cause they represent.

Employee Representation. The shop committee, works council, employee representation, or industrial representation, is a plan by means of which the employee is given, by the employer, some voice in regard to working conditions, some participation in the control of the shop. The prime purpose seems to be to get teamwork, to reduce unrest, and to bridge the gap between labor and management. Another reason for the organization of an employee-representation plan has been to supplant or to forestall the unions. Employee representation is a means to an end, industrial peace and efficiency; it is not an end in itself. The plan is not a substitute for good management; in the hands of an excellent personnel administrator, it may be made a desirable means of directing man-power.

History of the Employee-Representation Movement in the United States. The first example of the use of a shop committee without connection with a union seems to have been in the Filene store in Boston. It began as an insurance committee and has gradually increased its functions and powers. The Filene Coöperative Association of today may be traced back to this humble beginning in 1898. In 1903 the Nernst Lamp Company of Pittsburgh established a shop committee. The American Rolling Mill Company, in 1904, initiated an "advisory committee" plan, and, in 1907, the Nelson Valve Company of Philadelphia experimented with a shop committee. Of these three attempts, the second only is now in existence. In 1911 the Mitten plan on the Philadelphia Rapid Transit Company was inaugurated. Also, in 1911, the Hart, Schaffner, and Marx plan utilizing a union shop committee was adopted. In 1912 the Packard Piano Company of Fort Wayne adopted the Leitch, or governmental, plan of employee representation. Three years later the initiation of the Rockefeller plan by the Colorado Fuel and Iron Company marked the first use of the shop committee by a large corporation.

During the World War many works committees were established under the guidance of the National War Labor Board. A considerable number of companies in 1918, 1919, and 1920, harassed by the growing independence of workers and by the failure of the old methods of discipline, adopted personnel management, employee representation, welfare work, house organs, profit sharing, or other schemes in a frantic endeavor to reduce labor turnover and to increase the efficiency of their plants. When the crisis of 1921 occurred, many of the plants whose managers considered these "newfangled" plans only as temporary expedients to meet a bad situation, scrapped them and returned to the old-fashioned methods of keeping "labor in its place." House organs were discontinued, welfare plans were abandoned, personnel departments were discarded, and shop committees were shorn of their powers or discontinued. However, a considerable number of personnel departments and of employee-representation plans weathered the storm. The movement is now on a firmer footing and bids fair to grow more gradually, but certainly. It was estimated in 1926 that one to one and one-half million workers employed by over five hundred companies were participating in non-union employee-representation plans. Another estimate is that, in 1928, about 1,700,000 employees were under some form of the shop-committee system. There is little indication that small concerns employing less than two hundred workers will utilize formal shop-committee methods. In 1926 employee-representation was especially important in public utility companies.

Employee Representation and the Union. As usually organized, employee representation, or the shop committee, constitutes a "company union" of all the employees of a plant. Primarily, a shop committee is a one-plant affair, although it is practicable to form a federation of shop committees. The problems of the shop committee as organized at the present time are chiefly local; and, furthermore, it possesses all the weaknesses of a local union without national affiliations. To its membership representatives of the management are often admitted; it then becomes a joint committee. The shop committee gives workers an insight into plant problems they cannot otherwise obtain, and it affords the management an idea of the workers' point of view and difficulties. A properly organized and recognized shop committee makes for mutual understanding, for teamwork. Under this plan the interpretation of an agreement is placed in the hands of local men familiar with the details of the situation. If plant quarrels are ended, the sphere of action of walking delegates and outside agitators is greatly reduced. Ordinary union meetings are usually not well attended. Consequently radicals and malcontents often gain the upper hand. Shop committee meetings held in the shop—the natural place for a union meeting—will draw a good attendance. The necessity for holding union meetings outside the shop emphasizes the fighting character of the typical union, for which character employers are largely responsible.

The shop committee initiated, fostered, and directed by the employing group cannot be a potent instrument in the hands of workers. It is local and employer-dominated. Not until the shop committee gets away from employer-control and begins to take on the essential features of unionism—independence and ability to paddle its own canoe—can it be expected to become a potent factor in the evolution of industrial democracy. As a coercive agent, the shop committee is weak. If the employer continues to feel that it is necessary to combat labor, the shop committee is practically useless. Under this system the workers are deprived of the services of outside experts. A local shop-committee agreement has little or no effect upon equalizing wages and competitive conditions in other parts of the industry. A national union making a trade agreement is ordinarily able to spread the terms of the agreement without significant modifications over a large fraction or all of the industry. One employing concern will know his competitors under the agreement are paying the same wage scales. The "fair" employer is protected against his "unfair" competitor. However, the "fair" plant with a good shop-committee system may achieve such a high grade of efficiency and teamwork that it need not fear the "unfair" employer who aims to keep labor "in its place."

If employee representation is worth anything as a part of a personnel program, it must be entered into as a straightforward scheme for bringing into existence industrial peace and harmony. If it be fostered by employers as a subtle way of destroying the efficacy of labor organizations and of making the workers subservient while hugging the shadow of power, the employee-representation system will in the long run avail little. But, if initiated as an honest effort to introduce teamwork, interest, and enthusiasm into a common enterprise, the shop committee has great possibilities in improving the efficiency of production methods and in the modification of industrial management and control. Employee representation involves the principle of consultation. The workers are to be consulted as to working conditions. Clearly, the workers are interested in management. Bad management usually means low wages, poor working conditions, undesirable human relations within the shop. The rank and file of workers are anxious to place authority for management in the hands of those who know what to do and how to do it. A successful employee-representation plan will have incorporated into its rules of procedure (a) the principle that representatives of the employer and of the workers will have definite opportunities for formal conferences, (b) a method by means of which the employees may freely and without dictation or interference choose their own representatives, and (c) a promise, which must be strictly adhered to, that a representative of the workers will not be discriminated against because of his activities as a member of the shop committee.[1]

Is it possible to amalgamate shop committees and unions? An affirmative answer may be returned if (1) the union can be divested of its extreme belligerency, and if (2) the shop committee can be shorn of its dependence upon the will and pleasure of the management. Professor Commons has been quoted as declaring that "a union's purpose is necessarily and designedly restrictive." It is intended to tie the hands of the employer. May we not, however, with reason anticipate that a union faced by employers who are not actively opposing it will change its methods and ethics? Surely, no one will contend that business ethics do not change with the passage of the years and with varying business conditions. Is it not reasonable to expect significant changes in the case of labor organizations, provided the conditions essential for survival and success are modified? The experience of the Baltimore and Ohio Railway with its union shop committee, the success of the trade-agreement scheme in the clothing industry, and the policy of the printing pressmen in employing experts for the purpose of improving the presswork in printing establishments employing union pressmen point definitely to the conclusion that certain unions, when no longer obliged to fight for recognition and for their existence, begin to acquire a fundamentally constructive attitude toward industry, and to emphasize efficiency and workman-like qualities.

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[1] Carver, A. H., *Personnel and Labor Problems in the Packing Industry.*

Opposition to Shop Committees. Active opposition to the organization of shop committees arises chiefly within the ranks of organized labor. It is believed, not without reason, that employee representation is being used by anti-union employers to break the strength of organized labor. Doubtless a portion of this opposition is due to the fear of union officials that the shop-committee plan of organization runs counter to the customary form of labor organization and will eventually undermine the position and prestige of the leaders of the orthodox type of unions. In the second place, it is urged that the shop committee, stressing local organization and purely local problems, is of necessity a weak form of association. It cannot possess significant economic power. Thirdly, the shop-committee plan, as a rule, does not permit the choice of representatives from outside the plant. Consequently, the members of a shop committee are all chastened in spirit by the ever-present fear of losing their jobs. There are examples, however, of outsiders being selected as spokesmen by shop committees. In the fourth place, unionists and union leaders are accustomed to think in terms of conflict when considering relations between management and men. They are inclined to look with disapproval upon a plan which stresses the constructive rather than the militant side of industrial relations.

If personnel management and employee representation prevented, reduced, or eliminated much of the friction in connection with human relations within the plant, it seems clear that there would be little demand for outside union officials to interfere in shop matters. Shop quarrels make excuses for the activities in local matters of union officials. The proper functioning of shop committees and of personnel management would allow the business agent and the national officer to devote their attention to the field outside the scope of the local shop. Employee representation has been getting as much, or more, for the worker in recent times as the union. Of course the union in the background may be a potent cause of the fair success of employee representation. Indeed, shop committees may in time become powerful and potent factors in industrial relations. It will not be a simple matter to do away with employee representation after workers have become accustomed to the system.

The Outlook for American Labor Organizations. Among the many factors upon which the immediate future of unionism in America may depend, two seem especially worthy of emphasis: (1) the appearance since 1919 of a new type of industrial management, and (2) the adoption of a new theory of wages by the American Federation of Labor.

What are the chief characteristics of the newer management methods? (*a*) Up-to-date management is attempting to gain the good will of workers. It is using finesse rather than the old drive methods based upon fear, and it is stressing the existence of certain common interests between management and men. On the other hand, radical groups of workers are ever reiterating vociferously that the attitude of management toward workers is only a subtle means of controlling them.

(*b*) Management has been studying, with considerable success, methods of reducing labor turnover.

(*c*) Management is adopting new methods of selecting and promoting workers. Much unrest among industrial workers has been caused by the improper and careless adjustment of workers to their work. The absence of a worth-while plan of promotion has also been a frequent and potent source of industrial friction. A definite program by means of which meritorious workers are promoted is like oil on a bearing. It makes for industrial peace and for teamwork.

(*d*) The new type of management aims to give workers increased security on the job. Regularization of industry will tend to reduce, and even to eliminate, the sort of restriction of output caused by the ever-present fear workers have felt that efficiency usually meant working themselves out of a job and into the unemployed group. Progress toward industrial good will and industrial peace will depend in no small measure upon the increasing acceptance of the program of the new type of management. It is clear that some variety of employee organization will be formed. A group system in industrial organization and control is here to stay. To get things done where large numbers are concerned, organization is essential. Either some form of employee representation or some type of unionism, or both, will be found in industry. Many employees are finding it easier to get along with shop committees than without, but nearly all employers prefer to get along without unions.

Rarely has management tried to develop or bring to the surface whatever good points unionism may possess. Too often management has assumed that unions are undesirable and has openly or stealthily tried to weaken such organizations. Employers have as a rule preferred to fight unions instead of establishing relationships which pave the way for coöperative endeavor. As a consequence of being forced to struggle for their continued existence, labor organizations have developed undesirable qualities which make for difficulty in peaceful negotiations and in teamwork. The results obtained under the Baltimore and Ohio Railway plan, in the men's clothing industry, and in the case of a paper manufacturing company in Wisconsin indicate that it is not difficult to substitute good will between management and organized labor for industrial warfare or an armed truce, provided the management be intelligent and fair-minded.

One of the big, and often neglected, problems of management engineering is connected with the direction and utilization of groups of workers. In the past a union has been a fighting organization aiming at restricting and harassing management. An engineering problem of today is that of helping to change the relation between management and men from antagonism and suspicion to that of coöperation and of teamwork. Some professional management engineers are beginning to see that it is one of their functions to foster and encourage labor groups and to develop a technique for such organizations so that workers and their organizations may contribute in a notable fashion to industrial processes.

American industrial methods call for an unusual amount of coöperation and teamwork among and within business units. The individual initiative of the craftsman is no longer as important as the ability to fit into an organization and work with others with a minimum of friction or waste. The high-grade executive of today must have highly developed the faculty of getting others to work with him; he inspires his coworkers to do teamwork; he develops good will and service. Dense population, large-scale industry, machinery and standardization—all make for the qualities which are essential in the harmonious functioning of large groups.

A forward glance indicates that the future of unionism is closely connected with the future of management. If management takes the professional point of view, if there is a tendency to accept reasonable and stable dividends on the capital stock as a goal instead of speculative profits, if the view that high wages should be paid prevails, if excellent personnel methods are used, then, and then only, may we confidently expect a considerable change in methods and programs of organized labor, or labor's temporary eclipse.

The attention may now be turned to the wage theories of the American Federation of Labor. In the past organized labor has struggled to obtain an increasing fraction of the output of industry without giving consideration to the total out of which the fraction is to be taken. Fortunately, since the War, organized labor has been slowly moving toward a point of view which will enable it to join forces with the industrial engineer. It is now not impossible to assume that militancy in labor unions can be replaced by interest in productivity and in efficiency. Organized labor is now beginning to stress the importance of increasing output and of reducing waste in order that the amount produced may be made larger and that labor's share may become greater even though its fraction of the total remains unchanged. American labor organizations are in the process of accepting a theory of wages which rests upon the principle that real wages should increase with productivity. After the idea is accepted that real wages are not unrelated to productivity, it is not a long step to the notion that inefficient management and output-restricting management and ownership reduce productivity. This theory of wages inevitably causes the wage-earning group to become interested in management.

A significant recommendation in regard to wages was adopted by the American Federation of Labor in 1925. The Federation officially declared that "the best interests of wage workers as well as the whole social group are served" by increasing the quantity and quality of production and by the maintenance of "high wage standards which assure sustained purchasing power to the workers." As a consequence, "higher national standards" will be assured and the workers will enjoy a larger measure of cultural opportunities. From which it follows that increased wages do not necessarily come out of profits. The acceptance of this theory of wages puts a new aspect upon such practices as restriction of output and opposition to scientific management. The practice of arbitrarily restricting output is beginning to be looked upon as inimical to the interests of labor. The production of commodities is now recognized to be a group undertaking requiring teamwork. The general acceptance of this theory is interfered with by irregularity of work and the displacement of workers by machines and new processes. The directors of mass production enterprises are also clearly discerning the desirability of high and regular wages in order to maintain adequate market opportunities for such industries. Certainly if organized labor is to be interested in productivity, it must be made clear that increased output will not cause the workers to work themselves out of a job—as apparently happened in 1921. The coördination of productivity and purchasing power is the big problem for management as well as for organized labor. These new points of view focus the attention upon productivity and purchasing power rather than upon the division of the results of productivity into wages, profits, and rent. Stress is laid upon productive teamwork instead of upon militant activities in dividing the spoils.

Workers are beginning to understand that low wages are often paid because of bad management, because a good cost accounting system is not used. Labor is objecting to bearing the burden, in low wages and long hours, of inefficiency of management. With increasing use of cost accounting, publicity as to the facts disclosed by studies of costs, and improved management, certain causes of friction and suspicion are greatly reduced. Labor groups do not desire to insist upon demands that will actually weaken and destroy the industry from which they are deriving an income. It is not improbable that instead of wishing to increase inefficiency and to cause revolutionary changes in industrial control and operation the workers may become interested in industrial improvements and in stabilization of industry. Union leaders who support the new American Federation of Labor program cannot logically stand against the introduction of machinery and of scientific management.

Again, business management, aided by important technical inventions, is now greatly concerned with marketing problems. Are the masses of the people able to purchase the great flow of commodities coming from our large-scale plants? High and steady wages place such purchasing power in their hands. The short working day and the five-day week are plans which aid in stimulating wants and purchases, unless purchasing power is lacking. Industries which are over-expanded do not look with disfavor upon policies which will increase purchasing power. Certain traditional elements of friction in the relations between management and men have almost disappeared in the light of the new industrial day of enormous productive capacity. Will new battlefields appear as labor's interest in productive efficiency develops?

In addition to the influence of a new type of management and of a new theory of wages and of purchasing power, it may not be irrelevant to allude to a few other factors affecting labor relations. The great increase in per capita productivity in the last decade, the increase in comfort, the dawning of the bright hope that destitution may be banished from the Western World—all point toward a reduction of group friction, toward a less clear-cut clash of interest and classes. Furthermore, business unionism of the step-by-step variety, of which the American Federation of Labor is a fine example, is almost devoid of idealism. To reach and inspire the young in a period of relative comfort in which bread and butter seem assured, it is necessary to appeal to some great and attractive cause or aspiration. Mere opportunism does not inspire a comfortable people to rally around a common standard with zeal and enthusiasm.

The extraordinarily rapid changes in the technique of industry, in methods of transportation and of communication, in ownership of property and of property rights, and in living conditions are putting their impress upon labor and labor movements as well as upon other aspects of American life and thought. Technical advances are causes of revolutionary social and industrial changes. Growing complexity is characteristic of American civilization. How to cope successfully with an alien and intricate industrial and social world is our problem. Organizations and movements molded under earlier, simpler, and less coöperative circumstances must adjust to new conditions or weaken and finally disappear. If this analysis be reasonably accurate, the future of American labor organizations depends upon the policies adhered to by management and upon the ability of old-line unionism to adjust itself to a situation in which many of the old causes of friction and of struggle in labor relations have disappeared. At any rate, it seems clear that unionism of the militant craft type, such as has been predominant in the American Federation, cannot hope to succeed in organizing workers in the great integrated and standardized industries which are typical of manufacture today.

QUESTIONS

1. Draw a contrast between the American Federation of Labor and the Industrial Workers of the World.
2. What are the chief differences between unions and shop committees?
3. Which do you favor? Why?

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CHAPTER XXVIII

LABOR MANAGEMENT

Ignorance in Labor Management Costly. No competent engineer would build a bridge or design a locomotive without careful and painstaking consideration of stresses and strains, of the forces of gravitation, of adhesion and cohesion, of factors of safety, and of a multitude of other fundamental factors. To do otherwise would be to invite disaster. Likewise, if it runs counter to fundamental social forces, no plan for evolving a better social and industrial edifice has a reasonable chance for success. Experiments in industrial management and personnel administration constitute investigations into the complexities and perplexities of social science or of human engineering. Obviously the determination of a rational labor policy involves the consideration of complicated and delicate forces. Nevertheless, nearly every person feels entirely competent to determine offhand labor policies, political programs, and social platforms with only the aid of preconceived notions and inherited beliefs. Many are the blind attempts which are being made to solve industrial problems. In most cases the experiments remind one of the man ignorant of the automobile who tries to eliminate engine trouble by acting along the lines suggested by a series of haphazard guesses as to the difficulty; but ignorant social experimentation is often costly. As a rule, when attempts are made to analyze the fundamental causes of industrial strife, the assumption is made that the conflict is clearly one in which employers and investors are lined up in antagonism to the employees and wage receivers. The elements of friction are assumed, without further consideration, to be due primarily to differences in interests and points of view of employers and employees. The socialists and the conservatives have accepted these *a priori* premises. If this view be accurate, the solution evidently must be found in attempting to discover common interests in industrial peace and in minimizing points of disagreement, but it may be necessary to delve more deeply into the intricacies of human psychology and of racial inheritance.

The Field of Personnel Administration. The personnel or industrial relations department of a factory or a store deals primarily with human relations. It endeavors to reduce the friction and suspicion between management and men. It aims at increased productivity accompanied by improvement in the working conditions and in the well-being of the working force. A department dealing with personnel relations is of service if it aids in introducing scientific procedure into production methods, if it increases production, diminishes waste, and reduces costs. Personnel work is advocated as a business proposition; it is not a form of philanthropy or of altruism. Most emphatically the personnel department is not an instrument "to put something over"; its purpose is not that of keeping the workers quiet and fearful. A successful personnel department will work in the open. Personnel work is not welfare work installed in an attempt to soften the harshness of the competitive system. The science and art of personnel management with its application of scientific methods is needed in governmental service and in coöperative establishments as well as in industrial establishments of the typical kind. The greatest service of the personnel department consists in the promotion of goodwill between employers and employees—and goodwill is an intangible, but important, asset difficult of accurate measurement. A well-organized personnel department makes for improved human relations in industry, and improved human relations—teamwork—mean greater efficiency and larger output, or the department makes possible larger profits, higher wages, and lower costs and prices without sacrificing quality.

In the last century the race in industry was usually won by the country and the firm which surpassed competitors in engineering technique. In the near future it may not unreasonably be expected that the race will be won by the nation and the industrial organizations which excel in human engineering, or in personnel administration in its broadest and best sense. Harmonious relations within a plant are more important than excellent equipment, but, of course, the two should go hand in hand. The art of personnel administration rests on psychological and sociological science. In order to cure the ills of industry, the managers of business must have some insight into the psychological factors in human nature, must touch the hidden keys which aid in revealing the motives, purposes, and desires of men. Efficient teamwork in industrial and educational affairs depends upon ability to disclose the "mainsprings of men." The personnel department aims at the replacement of guesswork and traditional methods in the control and direction of a working force with scientific methods. It is a tool for the establishment and maintenance of industrial peace.

Personnel work should be freed as far as possible from the emotional bias. Unfortunately emotional bias often creeps into relationships between human beings. Physical obstacles are dealt with calmly and scientifically, but human obstacles give rise to highly emotional states. Industrial peace and harmony are fundamentally matters of management—management which takes into account the impulses and incentives which control mankind. Only recently is it being comprehended that the main function of management is the development of teamwork among the various employees of the establishment. There is no panacea for industrial peace. If we are to take steps in that direction, the basic instincts and impulses of men and women must be carefully studied. To achieve progress toward industrial peace means that we must cease using all of our efforts in trying to adapt men to industry and begin attempting to mold industry into greater harmony with human nature—a product of the ages-long experience of the human race. We have devoted too much attention to what it is considered human nature ought to be; more careful study and investigation of actual human nature is sorely needed. Why do men and women react as they do under the conditions now obtaining in industry? Under what conditions may these reactions be modified?

The Road Leading toward Industrial Peace. Industrial peace—permanent, satisfactory peace with efficiency—must come by the development of harmonious relations within the industrial group. It is a matter of teamwork, of joyous and willing coöperation. It is the outgrowth of man-to-man relationships. Peace gained at the expense of conflict and of court procedure is not likely to be accompanied by such relationships within the industry and such interest in the outcome of the common enterprise as are conducive to teamwork, increased enterprise, and efficiency. The road leading toward industrial peace and progress is not that of conciliation, arbitration, or industrial courts, important and beneficial as these may be in certain cases. The road which ultimately must be traveled is that which leads toward mutual helpfulness and common interests between management and men.

The various lines of activity centered in a well-developed personnel department aid in pointing out the road over which we must travel in order to reach a state of industrial peace and of greater efficiency. The future of personnel work depends upon the existence and recognition of certain common interests between management and employees, upon the possibility of a certain amount of "integration" of interests. If there are no common interests between investors and workers, the personnel department has no function to perform. Let it be noted at the outset that many of the acute difficulties in industrial relations are not due to a feeling that the present order is hopelessly maladjusted. It may also be pointed out that the friction in industry has not grown entirely out of the situation developed by the rise of large-scale business, subdivision of labor, monotony, absentee ownership, and impersonal relations. Some of the worst cases of bad industrial relations may be found in the small shop—sweatshop—operated by the owner, and in which the use of machinery and subdivision of labor has not gone far.

Ill will in industry causes incalculable business waste. It leads to increases in costs all along the line from the primary producer to the ultimate consumer. The most deplorable and costly labor troubles are not the spectacular ones which flare up in strikes and lockouts and which attract the attention of the newspapers and of the man in the street; they are the steady day-by-day disintegrating and retarding forces which are akin to friction in the bearings of a delicate machine—suspicion, ill will, lack of interest in work, poor management, killing time, dilution of efficiency, sabotage. The items in factory management which are invisible to the casual visitor of a plant, which relate to the human side of industry, are those which count for much in the program for industrial peace.

Much friction in industry is the result of ignorant, traditional, and unsympathetic treatment of the workers. Ill will and suspicion are often due to harsh, unjust, and dictatorial treatment of workers by a foreman, to delays and confusion caused by bad management which reduce the wage received in the next pay envelop, to irregularity of work, to favoritism, to lack of consideration on the part of his superiors for the worker, to bad working conditions, to other irritating experiences incidental to the daily work of many industrial establishments. In short, much bad blood in industry is directly traceable to personnel relations. The factory worker whose feet get cold because he is obliged to stand on a concrete floor will ask himself: Why? He will brood over the matter and will become disgruntled with the management. A well-known business man interested in industrial relations tells about visiting a shop which was smoky and poorly ventilated. Some weeks before the men had asked in a formal manner for blowers and ventilation, but a long delay followed in getting the apparatus. At the time of the visit the apparatus had arrived but as yet no steps had been taken to install it. The management obviously was not interested in the welfare of its employees. Teamwork under such conditions was not to be anticipated.

The little and often invisible difficulties are the ones which easily feed the flames of suspicion and hatred in industrial relations in factories, stores, and mines. Little things make easy the work of the agitator. Discontented radicals are developed as the result of a cumulation of disagreeable episodes. The history of many labor difficulties has been compared to a snowball rolling down the mountain side. It starts from small beginnings but finally it becomes a large sphere of difficulty. On the other hand, kindliness, sympathy, thoughtfulness, and consideration, accompanied by square dealing and firmness, will go far toward developing good industrial relations in a plant. The teacher who treats his students with courtesy and fairness has very little difficulty. Students and workmen react much alike; human nature is essentially the same in all walks of life. The personnel department should, of course, emphasize the fundamental importance of square dealing, but it should also attempt to utilize such knowledge as we have of the science of human behavior. Industrial peace is fundamentally a problem of intelligent management and of industrial control; it is not primarily one of outside-the-industry adjudication.

Common Interests. Extremists, on the one hand, have asserted that labor and capital "have nothing in common." On the other hand, certain blind optimists have insisted that labor and capital have only common interests. Clearly the truth lies somewhere between these two points of view. Wage rates have been a fertile cause of industrial conflicts. Nevertheless, even at this point, there are certain common interests. Employees do not wish to insist upon such high wage rates as would force the industry to close down by making it permanently unprofitable. Employers are interested in paying wages above that minimum which would force a reduction of the productivity and impair the stamina of the workers. There are common interests in the expansion within reasonable limits of the business, and in preventing its injury or destruction by adverse legislation. Labor and management may also find common interests in opposing special privilege which holds out of use land, natural resources, and patents. There is very little conflict between workers and employers who accept the advice of their personnel managers in regard to matters relating to health of workers, hours of labor, hours of recreation, and fatigue investigations. Certainly well-trained and efficient workers are of equal or of greater importance to the employer than up-to-date and properly constructed and operated machinery. The industrial psychologist is ready to affirm that "every advance in knowledge, every improvement in scientific technique which makes the lot of the worker easier or affords him a better return for his labor, at once puts money into the pockets of the master." [1] The task before the personnel manager is that of convincing the hard-headed business man that there is a possibility of gaining the goodwill of his workers without sacrificing profits or business success. Indeed, the only healthy hope of business success in the face of stern competition may be bound up in human engineering. Doubtless the ease or the difficulty of educating the business man so that he may see the advantage of cultivating a new sort of industrial relations will depend upon the type of business and the training and experience of the executives.

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[1] See Harrison, H. D., *Industrial Psychology*, p. 167.

The Functions of the Personnel Department. The job of the personnel director in any industrial establishment is to study the problems of human behavior and to endeavor to apply the results of study and investigation in such a manner as to improve industrial relations and develop teamwork between management and the rank and file of workers in the plant. His work involves (1) a study of the psychology, incentives, and traditions of the workers and of the executives as well, and (2) a consideration of the technical methods of the plant in so far as these affect the interests, instincts, and traditions of the rank and file. The personnel department is not one that can be segregated from other departments. Its program cannot be carried out independently. The success of the personnel department depends in no small measure upon the ability to get coöperation and sympathetic consideration from the foremen, heads of departments, and the general manager. The functions of the personnel department are primarily advisory and educational. Teamwork is the keynote of personnel administration. If the executives of the company are not favorable to personnel management, if they are introducing it as a newfangled remedy for a bad situation, the main job of the personnel manager will be to convince the management that personnel work is essential to future progress.

The successful personnel manager will be able to exercise an educational influence upon other departments. For example, a personnel manager cannot greatly reduce labor turnover in a seasonal business unless he can educate the leaders in the sales department so that they will adopt methods which will aid in regularization. In other cases, it may be necessary to enlist the coöperation of the production manager. While much stress is laid in this chapter upon the application of scientific methods in business procedure, let it not be forgotten that the old fundamentals of square dealing and of consideration for the other fellow are essential in the development and maintenance of amicable relations in industry.

Emphasis has been laid upon the desirability of coöperation between management and men, but too often management has expected the employees to do all of the coöperating. Too frequently the management of an industrial plant has waited until trouble was brewing before it began to consider coöperating with the working force. Then the management hastily turned to conciliation, arbitration, impartial chairmen, shop committees, or personnel departments. A frantic attempt is crudely made to repair a poorly functioning business machine. A personnel department introduced as a last resort will function under great difficulties. The best time to introduce personnel work into a plant is when there are no symptoms of acute distress. Too many executives devote an unnecessarily large portion of their time, energy, and ingenuity in wage bargaining and in conflicts over wages, hours, and shop conditions. A personnel department should relieve the executive of such burdens. After all, is not wage bargaining a minor matter in management and in profit making? This seems to have been the attitude taken nearly a generation ago by the managers of the Filene store in Boston. Low wages may mean easy and immediate profits, but at the expense of later profits and efficiency. A personnel manager will stress the importance of conferences, publicity, and workers' participation in control.

The study of a textbook on personnel administration or the listening to lectures by experts upon the subject will not produce trained personnel managers. A systematic course of study in personnel administration is not a substitute for actual contacts in the industrial world. It should, however, shorten the time required to get the necessary experience and will enable one to make good use of his experience. No one should undertake personnel work until after he has lived for a time the actual life of a worker in factory, mine, or store, and knows what is "on the worker's mind." The personnel manager needs a sympathetic understanding of workers, their problems, and urges; but more is required. The systematic study of personnel administration should direct the student toward a consideration of the principles underlying industrial psychology. Men and women are called for in this phase of industrial management who are interested in social engineering and who have absorbed some of the basic principles involved in establishing peaceful industrial relationships. In reading and study the student will gain more by getting an understanding of the fundamentals of industrial psychology than by the consideration of detailed plans and programs which have been proposed or utilized.

Upon the factory of today are focused many sciences and arts. In the up-to-date industrial plant are found an intricate organization of machinery, the utilization of natural resources and power, and the application of human resources and powers. For effectiveness it is at least as important that there be an elaborate and scientific organization for the utilization of man-power as that good technical methods be employed in the utilization of power and machinery. The "accumulated wisdom of civilization" may well be applied to the care and direction of man-power. Consequently the functions of a personnel department are many. The chief functions may be enumerated as follows:

1. Employment—interviewing and selecting employees, introducing them to their work, transfer, promotion, discharge, regularization of work.
2. Industrial Relations—the adjustment of grievances, organization of shop committees, adoption of shop rules and of production standards, consideration of wages, hours, and other working conditions.
3. Education—training courses for executives, foremen, and workers, apprenticeship, suggestion systems, plant paper, library, etc.
4. Health and Safety—physical examinations, first aid, hospital, reduction of accidents, sanitation, lighting, etc.
5. Recreation—athletics, dramatics, vacations, outings, rest rooms, etc.
6. Welfare—housing, thrift, coöperative purchases, lunch rooms, etc.

7. Research—job analysis, motion study, methods of wage payment, cost of living, incentives, fatigue, labor turnover.

In many plants where some of the normal functions of a well-organized personnel department are being adequately cared for by other departments it may be well not to force a transfer to the personnel department.

Treatment of Workers. In any plant in which industrial peace is to obtain, the workers must be treated as men and not as machines or as menials. Wage workers are actuated by the same motives and instinctive reactions as are other human beings. Each man and each woman aspires to be a "real" person. To treat an employee contemptuously or to recognize him only by an impersonal number stings the normal man like salt rubbed in an open sore. Such treatment prepares the soil for a crop of unrest and inefficiency. Teamwork wins in the business world as well as elsewhere.

The real industrial statesman is a leader of his employees. If he is not, someone else will be. The main task of management is with labor—to secure and retain its good will and coöperation. Men like to work with others, but not under them. Workers are demanding agreeable management. Instead of considering that men work for an employer, the concept ought in good faith to be pushed into the foreground that employees work with employers for mutual benefit. Coöperation, not competition, in the labor-capital relationship is the aim. When this aim is partially achieved, close supervision will become unnecessary. All connected with the industry will be interested in getting results. Each worker will try to become an industrial advisor for the improvement of methods and the increase of output. "Mitten management" of the traction system of Philadelphia is one of the notable examples of what the square deal and open diplomacy will accomplish in the world of industry.

The world is ruled by feelings rather than by figures. Men are controlled by suggestion to a much larger degree than by reason. The power of suggestion, however, depends very largely upon the prestige of the person making the suggestion. The leader among men can easily suggest and have his suggestions followed. This is an important, but often overlooked, consideration in industrial relationships. All groups possess leaders; workers in factories and elsewhere will be guided by leaders. If the management does not lead, some other person will—a worker, a union official, an agitator, a local politician. The employer should be a leader. Efficient industrial management means leadership. A successful employer of the new type will "sell himself to his employees as well as to the purchasers of his products." The goodwill of workers as well as of consumers will be obtained by efficient industrial managers.

A growing sense of the worth and dignity of man is essential to industrial peace. Belittle the worker, ignore him, deprive him of the sense of worthwhileness, and you drive him into a state of apathy or of bitter hostility. Loyalty, love of workmanship, and interest in the job are destroyed by such treatment. The old "drive" methods of management and of foremanship ignored the fundamentals of human nature. Such methods are inefficient and out of date. The old business point of view has led to the operation of our great industrial machine at about 50 per cent efficiency.

Questions

1. Are there any common interests between investors and wage workers in an industry?
2. Between the active management and the workers?
3. Give examples of friction in industrial relations.
4. Have you come in touch with a "grouchy" foreman or boss?

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CHAPTER XXIX

STEADY EMPLOYMENT

Unemployment Is a Community Problem. Wages in the United States may be higher than in other countries, but irregularity of work is a great menace to the American wage earner. The job now constitutes the only significant source of income for a major fraction of our wage workers; it is the source of bread and butter. The typical wage-working family lives in a city or industrial town. When the breadwinner of the family is laid off, income stops, but living expenses continue. Wage workers of a generation or more ago lived upon a small farm or had a garden spot, a cow, and a few fowls to help provide food for the family. Today such aids are rare. Income is now received almost wholly in money. A worker's scheme of life is overturned when he loses his job. Wages "represent homes and families and domestic relations." Permanency of a job and regularity of work are prime essentials for the welfare of the wage worker and his family. The problem of reducing unemployment and irregularity of employment is a community and an industrial affair. Intelligently directed effort is necessary for the development of plans for the stabilization of industry. Irregularity in plant operation and of employment is very largely the result of bad, shortsighted, or indifferent management, of the lack of business ability, of the absence of consideration for workers, and of the failure to achieve industrial coördination. Unemployment and irregularity of employment can no longer be looked upon as decrees of fate. These evils are the result of human blunders and indifference. No considerable fraction of the blame can be laid to the wage workers. Surely if we expect men to work steadily on the job, management must be prepared to furnish steady jobs. The obligation of regularity is mutual.

Irregularity of employment should be attacked simultaneously on two fronts: (1) Each business unit may study the situation with a view to increasing its regularity of operation. (2) Governmental action may help control the credit situation, develop a public works' program, furnish statistical information, develop a nation-wide system of employment agencies, and aid in furnishing incentives to management in the endeavor to stabilize employment. Unemployment is a significant challenge to business and to government. To keep industry going at a high pitch is a fundamental social, economic, and engineering problem. While there are many significant isolated cases of successful regularization of industry, the American people and American employers have never faced irregular employment and unemployment as an engineering problem to be studied scientifically and solved. Little interest has been manifested in the jobless. Much less attention has been given to reducing the waste of man-power than to the elimination of waste of materials and to inefficient industrial methods. There is urgent need for directing the brain power of the nation, our ingenuity, and our inventive ability toward the reduction of unemployment and of industrial irregularities.

The business man of today thinks much about profits and competition, about high-pressure salesmanship, and investments, but he is giving too little thought to the rank and file of workers upon whose prosperity and welfare depend in no small measure community prosperity and well-being. High-pressure salesmanship is itself an indication of a lack of resourcefulness. Lower prices and greater efficiency, together with plans for placing greater purchasing power in the hands of the rank and file, would accomplish more for industry and for markets than the crude direct attacks of high-pressure salesmen. The business man and the investor are demanding a steady income and a sure return for their business skill and their investments. Labor is likewise interested in steady and certain employment at reasonable wages. The investor has been given a considerable degree of security, but the wage worker is perforce a speculator. The probability of steady employment and of the continuity of wage payments is far less than the probability of the regular receipt of income by bondholders or by owners of mortgages. If absentee investors are made reasonably secure as to their property and income, is it unreasonable for resident workers who are actively engaged in the industry to ask for the protection afforded by job security? If business and government wish to reduce unrest and radicalism, efforts should be directed toward giving the workers the same security that investors crave. Why should the unemployed or the irregularly employed look upon stability of government or security of property rights as anything of great import?

Business men are able to see and to understand wastes in production in connection with materials and machines. It is more difficult for them to visualize the distressing and costly human wastes due to unemployment—lost labor power, disjointed households, the emasculation or cancellation of thrift, the loss of stamina, and the degeneracy of the out-of-work. If the income of the worker can be stabilized, a long step may be taken toward stabilizing purchasing power and toward regularization of industry. It will give business buyers. To give employment to the unemployed would be to develop an enormous home market. To put an army of a million unemployed at work even at the extremely low wage of $1,500 per year would mean a billion-and-a-half dollar market. Of course this demand would not be all additional, as the unemployed and their families exist on past savings, charity, etc. The problem is fundamentally that of creating a sufficiently effective demand to furnish employment for workers who have been displaced by machinery or laid off because of the slowing down of demand. Our total wants are not satiated, but the community at times is not able to buy what it is prepared to produce or has actually produced. There is always work that should be done, but there are not always jobs.

Statistics of Employment. No accurate statistics of the amount of unemployment in the United States are as yet available. The census of 1930 undertook a nation-wide survey of the situation. The Labor Bureau, Inc., estimated that in 1927 the "net unemployment" was 4,000,000. Even in the best of years there are probably 750,000 to 1,000,000 unemployed. Between a good and a bad year the number of employed may fluctuate by a total of two, three, or even more millions. This type of fluctuation in employed is called cyclical. There is also much seasonal fluctuation in employment. The famous Report on Waste in Industry by the Federated American Engineering Societies estimated that clothing workers were idle about 31 per cent of the annual working time; shoeworkers, 25 per cent; and building trades workers, 37 per cent. The bituminous coal industry is one in which miners are idle on the average about 93 days each year. In 1925 it was estimated that the typical American wage worker lost 60 days because of unemployment each year—30 days because of no work and 30 days because of part-time work.[1]

The Effect of Unemployment upon the Worker and His Family. Unemployment and irregularity of employment are serious industrial ills or diseases. Unemployment is the master test of defectiveness in our industrial order as it exists today. It is a sure indicator of important social and industrial maladjustments. As has been suggested, insecurity of income and of the job is the most tantalizing and distressing fear which haunts the worker in this age of the machine. A job is the source of food, clothing, and shelter. The fear of losing one's job is comparable to the fear of famine which so frequently and so ominously confronted our ancestors of the ages long past. This nightmare of insecurity has direct and far-reaching effects in industrial affairs. Irregularity of work, whether due to seasonal changes, to cyclical modifications in the business and financial world, to arbitrary discharge, or to some other influence beyond the direct control of the worker, has induced employees to piece out the job and to join militant organizations featuring restrictive rules and regulations in regard to working policies. Irregular work and fluctuating income are prolific sources of discontent, ill will, and destructive radicalism.

Unemployment is desolating and devastating, corroding and corrupting, in its influence upon workers and their families. The jerky method of doing business leads inevitably to alternate periods of taking on and of laying off workers. Job-hunting, scarcity, want, wage-earning instead of schooling for the children, taking boarders, charity, or perhaps the necessity of removal to another locality, face the man who is unceremoniously laid off and his family. The man out of a job who goes from plant to plant, seeking pack-pedlar-like to sell his labor power, gets more and more despondent and disreputable-looking as the days drearily pass. Affairs at home grow worse and worse as economy after economy is practiced. Many a man laid off has started out bravely and hopefully in search of a new job, only to be transformed after many disheartening experiences in work-places where no help is wanted, and after working at many odd jobs, into a vagrant and an unemployable, or into a criminal. This is the tragedy of unemployment. The let-out and the industrially discarded are face to face with grim want in the midst of smiling plenty. They are failures and down-and-outers in a land of prosperity and of industrial activity. In the words of Whiting Williams, "nothing but experience can demonstrate how thoroughly the man who has no job, and knows not where to find one, feels himself today the absolute zero of personal worthlessness and insignificance." The industrial world is also confronted by a large, floating, poorly educated, improperly trained, and undisciplined horde of wage earners. Young boys and girls leaving school early in life and drifting from one blind-alley job to another are constantly recruiting the ranks of the irregularly employed. And, at the other end of this great drab line, older workers are entering the repulsive ranks of the unemployable, the pauper, and the criminal. Here we touch one of the sorest spots in our industrial life. The magnitude of the waste of man-power involved is appalling, and the community problems connected with charity and crime which grow out of irregularity of employment are alarming.

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[1] Forsberg, A. B., *The Master Builder*, July, 1925.

Effects of Unemployment upon Purchasing Power. The idle worker no longer receives wages. His purchasing power is reduced and his effective demand for the products of other industries is curtailed. This in turn leads to more unemployment. A vicious circle is followed—unemployment, less purchasing power, less demand for products, more unemployment. In 1921 the editor of *Industrial Management* declared that "unemployment is a cause, not an effect, of industrial depression." From the point of view of building up markets for the output of large-scale business, the economic importance of regularizing industry is clear; it would lead to business with buyers.

In earlier centuries scarcity—famine—was the great menace to the rank and file of the population. Today, in this new era of science, the machine, and power, over-production seems to be the great danger. Over-production in this sense means producing more than the community, for some reason, is able to purchase. "Purchasing power," writes Stuart Chase, "is the final arbiter of all jobs under the prevailing financial system." In a time of depression and of unemployment industry has the men, machines, materials, and money (credit) for active endeavor, but a fifth "M"—market—is lacking. Men who want food, clothing, shelter, comforts, and luxuries are anxious to work so that they may obtain adequate purchasing power which they lack. As consumers, the members of the community are unable to purchase what they, as producers, are prepared to furnish. In the picturesque language of another, "while these men beat the streets hunting for jobs, machines they might have operated stood idle. Materials, which might have been utilized by the machines, piled up on farms and rotted. Farmers in the Middle West burned corn for fuel because it was not worth hauling to town, while people in the cities felt the bitter gnaws of hunger. People were going about ragged while farmers despaired because they could not sell their wool, and clothing manufacturers deplored the idleness of their machines." Briefly stated, the big problem is: In a time of depression, how can purchasing power be placed in the hands of the wage workers?[1]

Technological Unemployment. The temporary displacement of men by machines is not new. It is as old as the Industrial Revolution. Generations of workers have feared and opposed the introduction of new types of machines. It has often been assumed that machines have helped to increase output without reducing the demand for workers. Decade after decade factories and machines multiplied and also the number of workers employed in factories increased. A machine might temporarily throw a worker out of a job, but ere long it was optimistically declared he would find a good job. The worker, however, is primarily interested in the short run, in jobs and wages today and tomorrow. It is cold comfort for the displaced man to learn that next year matters will be readjusted and another job found.

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[1] See Chapter on Business Cycles.

Since the War, however, a new situation has arisen. "Something cardinal has happened; some mighty corner has been rounded." The introduction of machinery, power, and improved management methods has led to an extraordinary increase in production, while the number of wage earners in agriculture, manufacturing, mining, and railroad transportation has actually declined. Changes, displacements, and readjustments are taking place with an unprecedented rapidity. The firing rate in our major occupations is more rapid that the hiring rate. In other fields displacement is also going on at an extraordinary pace. The automatic telephone is eliminating the "phone girl," the machine man is throwing switches in power houses, "canned music" is putting the professional musician on the streets. In recent years mergers of corporations have displaced a considerable number of salaried men who felt that their positions were secure. New jobs are appearing to take up the slack due to displacement and population growth. Garages, service stations, beauty parlors, taxicabs, insurance and bond selling, and other forms of personal service require the services of many workers. Does the displaced man get a new job? If so, is it the same or a different type of job? How long must he wait before obtaining a new job? What is known about the fate of the workers displaced in the major industries of the nation?

Two studies of the fate of men discharged because of lack of work give some indication of the "labor absorbing power of American industry." In the summer of 1928 an investigation was made of 370 clothing cutters in Chicago who were thrown out of work in the period from 1920 to 1926 because of technical changes in the industry. Only 69 out of the total found other work immediately. One-third of the number lost six months or more before new jobs were located. About one-fifth found jobs in the clothing industry. Of the remainder, 236 were working in occupations not similar to their former work. Another investigation traced the experiences of 754 workers in four industrial centers. These workers had been discharged in the twelve months preceding September, 1928, because their services were no longer needed. It was ascertained that 45.5 per cent of those investigated were still unemployed when interviewed. Only 202 out of the 754 had been idle for less than six months after losing their jobs. These two investigations point unmistakably to the conclusion that displacement is a serious contingency to the average worker.[1]

Certain employing concerns have attempted to help bear the burdens of adjustment to new methods. A dismissal wage may be paid. The employment department may strive to place the workers who are soon to be let out in other positions with the company or attempt to place them elsewhere. In 1926 Hart, Schaffner, and Marx, under an agreement with the Amalgamated Clothing Workers, discharged 150 cutters because of changed methods, but each man discharged received $500 paid from a fund to which the Company contributed $50,000 and the Union $25,000. In the interests of efficiency and industrial good will, the exercise of the power to hire and fire indiscriminately, or to increase and decrease the working force of an establishment in an arbitrary fashion, should be curtailed. According to newer standards of social ethics, the cost of readjustment caused by introduction of new machines and new processes should not rest solely upon the shoulders of the displaced workers and their families. If the man who is displaced by a machine becomes waste, industry and society, as well as the man, are adversely affected. Under a rational ordering of industry the machine would release workers for other kinds of work. Brain power applied to the problem will reduce the "growing pains" of a rapidly expanding industrial civilization. Prosperity may be planned.

Plans for Stabilizing Employment. There is no panacea for regularizing industry and eliminating unemployment. The problem is complex. The causes of unemployment and of irregularity of employment are a multitude. Consequently, it should be attacked on several fronts at the same time. Briefly stated, attempts to find a solution require action on the part of employers, of society, and of both coöperating together.

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[1] Myers, R. J., *Journal of Political Economy*, August, 1929; Lubin, I., *Proceedings of the American Statistical Association*, March, 1929; see also, Clague, E., and Couper, W. J., *Quarterly Journal of Economics*, February, 1931.

1. Of first importance is the carrying on of regularization projects for individual plants. This involves the development of improved managerial technique and the elimination of managerial indifference. The responsibility of employing concerns for the evils of irregularity should be emphasized. It has been pointed out that, in general health campaigns, little can be accomplished so long as certain centers of infection remain. Society or government is seriously handicapped in striving for the elimination of involuntary unemployment so long as employers do not use engineering methods in an attempt to regularize the operation of the plants under their control.

Many successful attempts to regularize plant operation have been made. Notable examples are found in the case of The Dennison Company, the clothing industry, Hills Brothers, The Sherwin-Williams Paint Company, The Procter and Gamble Company, and The Western Electric Company. These corporations have in a large measure eliminated the jerky method of operation, and an ounce of successful practice is worth much theorizing about stabilization. A management following traditional methods is likely to assert confidently that its particular business is different from any other and that it cannot be regularized. The firms mentioned above, however, represent very different types of industry and have resorted to different methods in regularization. The engineer W. R. Bassett writes: "I have yet to see the business which cannot either be continued through the whole year or be organized to take on another seasonal product, so that the full force can be used through the whole year."

Among the schemes which forward-looking and alert managers adopt for stabilizing their businesses are the following: lengthen the buying season by stimulating off-season demand; remove obstacles to off-season buying—for example, pack food products properly so as to reduce spoilage; develop new uses for products; search out new markets which have their peaks of demand at different seasons from the older markets; add side lines which may be dovetailed with the main output of the plant; simplify the regular lines by the elimination of unnecessary styles and sizes; manufacture staple articles for stock in the off-season; develop a definite sales and production program; reduce prices at strategic times in order to keep demand steadier. No two concerns have exactly the same obstacles to contend with, but to assert that regularization cannot be accomplished within reasonable limits is the answer of the lazy or ignorant manager.

A firm that has heavy overhead expenses and that has installed a good cost-accounting system disclosing clearly the presence of such overhead expenses has potent financial incentives for regularizing the pace of operation. In order to stimulate the management of irregularly operated industries to adopt a program of regularization, the following suggestions may be offered.

(*a*) Unemployment insurance of the type proposed in the State of Wisconsin would tend to stimulate projects for regularization. Under the Wisconsin plan for unemployment insurance it is proposed to put additional burdens upon plants that run irregularly. Unemployment insurance would also put some additional purchasing power in the hands of the unemployed and their families and help save them from pauperization.

(*b*) It may be suggested that unions making trade agreements with employing corporations allow employers who regularize their work to pay somewhat lower day and piece wages than those who operate irregularly.

(*c*) Some provision might be made for workers thrown out of work by new machines or methods, such as the payment of a dismissal wage or giving a bonus to those who voluntarily withdraw, as has been done in the clothing industry.

2. The second type of remedial plan centers directly or indirectly around the regulation of credit. It should be recalled that the typical purchase of today is made by means of a credit dollar (bank check, bank note, or greenback) instead of with metallic money. According to proposals for credit regulation, in a time of optimism and prosperity credit facilities should be curtailed, but in a time of pessimism and of increasing unem-

ployment, credit should be readily obtained for sound projects. An employment index might be used as a guide in determining when the brakes should be used and when released. To be effective, new credit dollars must be used for productive rather than for speculative purposes. Under this general heading three specific plans may be briefly considered.

(*a*) A Planned Public Works Program. The federal, state, and local governmental units spend each year large sums of money in erecting public buildings, in constructing roads, in river and harbor improvements, and in a variety of other projects. A definite plan covering a period of, say, ten years would enable a controlling commission to increase the amount of construction work in a period of slack work and correspondingly to decrease it in a period of prosperity.

The expansion of a public works program will ordinarily require the increase of credit through bond issues or bank loans, and the use of such dollars in the construction of public works and buildings will primarily give employment to many in such construction work and in the production of materials. In an indirect fashion other industries will be stimulated because the workers employed in those industries directly affected will become better customers of other businesses. The consequences of an expansion program are cumulative in effecting the reduction of unemployment, exactly as the shutting down of an establishment tends to be cumulative in its effect upon the sum total of employment.

(*b*) Private corporations should also be encouraged to make necessary improvements and additions during a period of slack demand. The success of a planned program of public works and of private industry expansion will be in no small measure dependent upon the prevention of over-expansion of industries and of public works by shortsighted business men and politicians during a period of optimism and prosperity. It may be necessary for the banks, guided by the Federal Reserve Board, to take concerted action in regard to credit facilities. Indeed, a program of allocation of capital and of credit to different industries in accord with some general plan may be suggested as desirable. The use of credit, if adequately regulated—expanded in a period of depression and contracted in a period of optimism—may act as a flywheel to smooth out irregularities and abnormalities in purchasing power and demand.

(*c*) The family was once the productive or economic unit of society. It provided sustenance for its members. Business has displaced the family as the productive unit, but civilized nations in times of peace have not developed systematic plans for the sustenance of the people. In the words of Wesley C. Mitchell, "they continue to rely on the badly coördinated efforts of private initiative." A city often regulates the type of building or of business which may be built or established on a given street. We are very familiar with the manifold regulations and restrictions which are thrown about a railway or a municipal utility. May we not likewise begin regulating, in the interest of workers and the public, the growth and expansion of certain key industries? As has been suggested, the soft-coal industry is distinctly a sick industry. It is troubled with recurrent disagreements between employers and workers. It is over-developed—too much capital is invested in the industry and too many workers are attached to it. Evidently the soft-coal industry is unable alone to solve its difficulties—strikes, under-employment, over-development, etc. A constructive national policy is needed; the difficulties are distinctly of national scope and import. Over-development is also found in many other industries—the shoe industry, iron and steel, lumbering, etc. In these industries are found irregularity of employment and unemployment of both labor and capital, and unemployment is a visible token of profound and disquieting economic and industrial maladjustments. Is it not pertinent to inquire as to the rôle the government may legitimately play in reducing these irregularities and maladjustments?

3. The stabilization of the value of the dollar will likewise aid in reducing irregularity in industrial activity. The "dance of the dollar" has been disastrous in our monetary history.[1]

4. As unemployment grows, the concerted lowering of prices toward the minimum of variable costs, without cutting wages, would tend to increase the effective demand for goods. This

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[1] See Chapter on Money and Credit.

policy would make possible greater purchases and would aid in keeping workers employed and, therefore, in possession of their customary number of dollars for purchasing. Industries having high overhead expenses would not find this policy difficult as compared with one of partial or complete shutdown. Mr. E. A. Filene asserts that if the prices of necessities and much-desired luxuries were cut 50 per cent, it would be difficult to produce all that would be demanded (purchased).

5. A well-organized system of public employment agencies would be of great assistance in bringing the "jobless man and the manless job" together. Employment agencies obviously cannot make jobs, but such institutions are able to act as clearing houses for labor power, and to gather and utilize information as to the labor market. The government—federal, state, and local—should be called upon to give greater assistance in vocational training. In an epoch of great industrial flux, the well-trained, adaptable man confronts fewer serious employment problems than others. A considerable amount of irregularity of employment is due to sickness. Education in regard to personal hygiene and diet, greater care in safeguarding the water and milk supply, the reduction of smoke and dust in our city atmosphere, the yearly physical examination of individuals by qualified physicians, and other health measures will raise the level of health and of efficiency.

Labor Maintenance. A fairly stable labor force is desirable in almost any industry. A large labor turnover, a procession of workers into and out of an establishment, is expensive and conducive to inefficiency. The costs of labor turnover may be classified as follows:

Hiring
Instruction
Wear and tear
Reduced productivity
Spoiled work

The process of selecting men, introducing them to their new job, and instructing or training them in their new work is obviously a charge upon the industry. New workers, unfamiliar with the machinery and the surroundings, cause greater wear and tear upon machinery—for a short period at least. Their productivity will not be up to standard, there will be more spoiled work and more danger of accidents than in the case of seasoned employees of similar skill and dependability. A cost of $30 to $150, or more, has been estimated as the financial burden of the termination of service and replacement by another worker.

A high labor maintenance or "holdover"—the stability or permanence of a labor force—is desirable. It is one of the tests of managerial efficiency. "As a man is known by the company he keeps, so shall a company be known by the men it keeps." Among the important factors making for labor holdover are:

Attractive wages
Steady work
Agreeable work
Short working day

These are fundamental in attracting and keeping a high-grade labor force. A good employment department, which makes careful selection of workers with a view to fitting the worker to the job, will be of great assistance in reducing labor turnover. The greatest amount of turnover usually occurs in the first year or half-year of employment, before the worker feels at home in his new workplace. An example of low labor holdover is furnished by a firm manufacturing rugs and carpets in an Eastern city. Roughly speaking, three out of every four employees had been hired within the preceding twelve months. On the other hand, a large corporation producing electrical appliances was proud of the fact that at least 50 per cent of its employees were five-year (or over) men.

However, it should be remembered that labor turnover is a product of liberty. There was a minimum of labor turnover under slavery and feudalism. It is desirable from the standpoint of progress occasionally to bring new blood into an organization. Old or inefficient employees must from time to time be retired or removed. The worker who has been employed in several plants possesses a diversified, and often desirable, experience. He has a feeling of independence, and wage rates may be somewhat higher because of labor mobility. It has been pointed out that other labor losses are as important as those connected with labor turnover. Irregular attendance and lack of punctuality will reduce the efficiency of a labor force. Failure to keep the force up to a high standard of efficiency because of excessive fatigue, low morale, lack of interest, and other personnel matters will also be expensive and demoralizing.

QUESTIONS

1. Why is unemployment more serious for the workers of today than for those of earlier generations?
2. What is technological unemployment? Give examples.
3. A factory has a high labor turnover. Make suggestions for investigation and remedy.
4. Do you favor an unemployment insurance law in your state? Why?
5. Give an example of plant regularization.

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CHAPTER XXX

THE LAW IN INDUSTRIAL RELATIONS

The Function of Government in Industry. The proper relation between government and business has for generations been debated. One view which was prevalent during the last of the eighteenth century and the early part of the nineteenth holds that government should do little except protect property rights, enforce the fulfillment of valid contracts, and guard against invasion by foreign foes and against uprisings at home. This is the *laissez faire* or non-interference program. At the other extreme stand the socialists and communists who would place practically all business activity in the hands of governmental authorities. In the United States we actually follow a middle-of-the-road policy. The government carries on certain businesses and regulates others with more or less rigidity.

Legal Complications. In the United States legislation in regard to industrial relations is subject to two controlling circumstances. In the first place, a measure for which there is a popular demand may be placed upon the statute books of a state or of the nation, and the state or federal officials provided to enforce the law. Presently the statute may be violated and the violator brought into court for punishment. His lawyers may assert that the law which he is accused of violating is unconstitutional, conflicts with either the state or the federal constitution. The courts may agree with this plea and declare the law null and void. The highest legal authority in regard to a conflict between a law and the provisions of the state constitutions is the state supreme court; in regard to the Federal Constitution it is the United States Supreme Court. Secondly, we live in the United States under a dual form of government—federal and state. To the federal government are delegated certain powers and functions; all others are left to the states or to the people. The federal government may regulate interstate and foreign commerce, but the regulation of hours of labor and of matters relating to safety and sanitation in factories rests with the various states. Such regulations, therefore, may vary with each of the forty-eight states.

Our constitution and laws provide for freedom of contract; that is, individuals have a right to bargain in regard to the buying and selling of labor and commodities without interference, unless a particular contract is held to be contrary to public policy. The elastic element in our intricate constitutional system is found in the concept "contrary to public policy." As our industrial and social life has become more intricate and interdependent, the legal interpretation of this phrase has changed. Laws regulating factory conditions which fifty years ago would unquestionably have been declared unconstitutional are now held by our courts to pass the test of constitutionality. For example, if a state passes a law limiting the hours of labor in coal mines to eight per day, that law will be held constitutional by our courts. It has been decided that a contract for work more than eight hours per day in dangerous and unhealthful conditions may be constitutionally declared by a state legislature to be contrary to public policy.

Factory Legislation. In the United States factory legislation relates to a large group of laws concerned with hours of labor in factories, stores, mines, etc.; the prohibition of night work; one day of rest in each week; exclusion of women and children from certain kinds of employment; methods and times of paying wages; guards for dangerous machinery; sanitary regulations; apprenticeship; discrimination against union men; and sundry other requirements. Unless the workers protected are directly engaged in interstate or foreign commerce, this legislation is a function of the states. Every state in the union has some legislation in regard to conditions in factories, stores, and mines.

Well-drawn laws relating to safety and sanitary conditions in factories are constitutional; they embody a legitimate exercise of the police power of the state. A child-labor law passed by a state prohibiting the labor of children in factories, stores, mines, etc., when under a certain age, or at night, or for more than a certain number of hours a day, is constitutional. A minor is not competent to make a contract; a minor is a ward of the state. A federal child-labor law for the purpose of regulating child labor uniformly throughout the country is unconstitutional. It interferes with the powers delegated to the states. In like manner, state laws relating to hours of labor, night work, and working conditions of wage-working women are constitutional; they are considered to be proper extensions of the police power of the state.

There has been greater reluctance on the part of our courts to extend the police power to protect adult male workers. However, the hours may be limited in hazardous and unhealthful industries. Only a few years ago the Supreme Court of the United States held that a state law limiting the hours of labor of men in factories to ten hours per day, providing for overtime at higher wages in emergencies, was constitutional. Compulsory minimum wage laws are unconstitutional, except in the case of children. A minimum-wage law fixes a point below which money wages may not be paid, usually at what is considered to be a subsistence wage. Laws aimed at preventing discrimination against union men have not stood the test of constitutionality.

After a well-drafted labor law is passed, its importance depends very largely upon the efficiency of administrative officials. In nearly all of the states the enforcement of labor legislation is placed in the hands of a labor bureau or an industrial commission. A law regarding safety or sanitary conditions should be drawn in general terms, leaving to the commission and its experts the minute details of regulation under the law. Good administration of a poorly drawn law may be an improvement over an excellent law poorly administered. A labor law is as strong as the machinery of administration. American legislatures pass too many laws. Better enforcement of laws already on the statute books is desirable in the realm of factory legislation.

Social Insurance. Industrial workers may be protected against accident, sickness, old age, and unemployment by other means than the inadequate one of charity. These vicissitudes may be guarded against either by individual or family action, or by group agencies. The older individualistic doctrine placed the burden of caring for these contingencies upon the individual or upon the family through savings. But it has been found that the weaker and poorer individuals, those with a smaller income or those who are improvident, do not, or are not able to, provide for such contingencies. We are developing a program involving some form of group action. This may take one of the three forms: compulsory (state action), union, or employer (corporation) insurance.

Since only a small percentage of workers are members of labor organizations and those usually of the higher income group, and since many unions as yet do little to meet the contingencies of accidents, ill health, old age, or unemployment, the second plan does not seem sufficient. Again, the methods used by unions having some form of insurance usually do not meet the approval of students of actuarial science. Certain employing corporations have adopted insurance and pension features for their employees, such as group insurance, medical and dental care, old-age pensions, and the like. Unfortunately, most of these lack a definite contractual basis. Some of these plans are used to break the power of unions or to tie workers to a company and reduce the labor turnover. Many corporations do not provide pensions or insurance for their workers. As a rule, only larger and more prosperous industries make such provisions. The great majority of pension plans are established by railways, public utilities, and by corporations in the metal trades. Hence, community action providing for compulsory social insurance seems necessary and desirable in order that the great mass of workers may be reached and the plans put on a definite contractual basis, and in order that such plans may not be used either for or against unions. It may be more advantageous for unions and unionists to have state paternalism than to be dependent upon the paternalism or welfare work of private institutions. Social insurance is compulsory, governmentally regulated insurance of industrial workers against one or more of four contingencies—accident, sickness, old age and invalidism, and unemployment. Because of rapid technological and administrative changes in industry, unemployment is likely to loom big for several years. As a consequence more insistent demands for social insurance will be made.

Workingmen's Compensation. This form of social insurance has found quite general acceptance in the United States. In

1930 only four states—Arkansas, Florida, Mississippi, and South Carolina—adhered to the old employers' liability system in the case of industrial accidents. Under employers' liability, the legal responsibility for an injury to an employee while at work rested upon some individual—the employer, a fellow worker, or the injured worker himself. The employer could ordinarily be held responsible only when it could be definitely proved that he had been negligent. To establish a claim, a lawsuit was necessary, and the outcome of the suit was very uncertain. Frequently, because of appeals and technicalities, awards that were finally made to an injured worker or to his family were long delayed. A large percentage of the payments actually made by employers was absorbed in lawyers' fees. The average amounts going to injured workers and their families were small. Many claims were settled out of court, but in such cases, the bargaining strength of the injured workers was not sufficient to insure adequate payments.

The workingmen's compensation laws in forty-four states differ greatly in details, but the same fundamental principle may be found in all. The industry is held to be responsible for the compensation of injured employees. Like fire insurance, compensation for injuries becomes an expense of doing business. The entire burden is assessed upon the employing firm. The premium requirements are such that the firm which introduces safety appliances and reduces the accident rate will benefit thereby in lower rates for insurance against industrial accidents. Under a well-drawn compensation law, it is profitable as well as humane to reduce industrial accidents. Prevention of accidents, as well as immediate and definite compensation for the accident, is a basic principle in a good workingmen's compensation law. Under this plan lawsuits are practically eliminated. Payments for injuries are made with a reasonable degree of promptness and of definiteness. The amounts paid are usually a percentage of the wages for the period of disability or for a specified number of weeks in case of death or permanent disability or in case of a particular injury, such as the loss of an arm. The percentage of the wages paid during disability varies in different states from 50 per cent to $66\frac{2}{3}$ per cent. The system is supervised by a state commission. In some states employers are required to insure through a state operated insurance fund; in others, mutual or other insurance companies may be used as insurance carriers. In certain states a firm whose financial standing is excellent may be allowed to make the compensation payments directly to the worker or his family. The percentage of wage workers covered by the compensation laws varies greatly from state to state. As a rule, farm laborers, domestic servants, employees of concerns employing a few workers, and casual workers are denied the protection of workingmen's compensation. Employers' liability applies to these groups of workers.

An adequate compensation law should also include compensation for industrial diseases. An industrial disease is caused by working conditions. For example, an industrial disease may result from dust, from particles thrown by emery wheels, or from contact with lead products. In the case of an injury which prevents the worker from following his former work or occupation, re-training for another job is often feasible. A large percentage of the states provide for re-training and re-education of industrial cripples.

Health Insurance. As yet, no American state has adopted health or sickness insurance. This form of social insurance is quite common in Europe. The sickness of workers is a more frequent cause of broken earnings than accidents. Sickness not caused by purely industrial diseases may be due to working conditions, to home conditions, to the habits of the individual, or to community conditions. One plan for health insurance would divide the expense among industrial workers and their families, employing firms, and the general public. Each of the three groups would be financially interested in adopting measures which tend to reduce the amount of sickness among industrial workers. An adequate and workable health-insurance law is much more difficult to draft and to administer than one providing for insurance in case of industrial accidents.

Old-Age Pensions. Provision for the old age of industrial workers may be made by charity, savings, insurance, or pensions. Charity is an undesirable and repulsive makeshift. For the great majority of workers receiving a low wage, voluntary saving or insurance sufficient to provide adequate maintenance after the work period is ended is difficult of accomplishment. And, to the young, old age seems distant and uncertain. Why save for such a contingency? Adequate protection against want or charity in old age demands for the rank and file of industrial workers either an insurance or a pension plan. Such plans may be governmental (social) or private. Private plans, whether fostered by a labor organization or by an employing corporation, will not cover all workers. Many do not belong to labor organizations, and up to date, few, if any, have adequate actuarially sound plans. Only a few corporations have developed pension systems for their workers, and, as a rule, such plans are not grounded on any definite contractual basis. Almost invariably the plan may be ended at any time by the employing firm. The conclusion seems inevitable that any adequate pension or insurance plan for industrial workers must be compulsory and governmentally directed. It should be a form of social insurance.

Is a compulsory old-age pension or an insurance plan needed in the United States? A competent authority estimated that at the end of 1929, 1,800,000 aged persons were dependent upon charity or relatives. According to the census of 1890, 738 persons out of every 1,000 males, sixty-five years of age or over, were recorded as gainfully employed; but thirty years later, in 1920, only 615 in 1,000 were gainfully employed—a marked decline in a generation. It is reasonable, in view of the rapid changes in industry during the period since 1920, to presume that the percentage of aged people gainfully employed has further declined. But the average expectancy of life is increasing. The following official figures indicate that old age is becoming the major cause of dependency.

YEAR	PER CENT OF TOTAL NUMBER IN ALMSHOUSE 65 YEARS OF AGE OR OLDER
1880	25.6
1890	31.8
1904	40.6
1910	42.7
1923	53.8

The problem of adequate financial protection of the industrial worker from the danger of poverty in old age is important and too large for private initiative.

At the end of 1930, eleven states and Alaska had passed old-age pension laws. These laws provide in most cases for county option as to the adoption of the plan. As a rule, the maximum amount allowed is thirty dollars per month. The pension is considered to be a form of poor relief to take the place of the almshouse. Except in one state, the entire expense of the pension is borne by the county. In Wisconsin part of the expense is paid out of state funds. In order to obtain these meager pensions where the plan is actually in operation, the aged dependent must be a worthy citizen of sixty-five or seventy years of age who has resided within the state for several years and who is in indigent circumstances. The federal government has not as yet taken any steps toward pensioning the veterans of industry. A law granting a subsidy toward pensions allowed by a state would aid in hastening the general adoption of old-age pension laws by our states. It would also aid in standardizing the state laws. These state laws all provide for non-contributory pensions. Neither the employer nor the employees have been asked to contribute. The money is raised by taxation. In fact the costs of maintaining the aged in almshouses are as great as the pension allowed under the most liberal state laws, but a pension which will keep the aged out of the depressing almshouse is certainly a humane measure.

A contributory insurance plan for old-age protection may be theoretically superior to the pension plan. It will not, however, aid those who have already reached or are near the time of retirement. "It is also important," writes John B. Andrews, "to remember that contributory plans involve complicated administrative machinery for the collection of payments and preservation of records over long periods of time." And people in the United States move frequently from locality to locality and from state to state.

Unemployment Insurance. A properly drawn statute providing for the insurance of workers against unemployment will aim to accomplish two distinct results. (1) The law should penalize employing firms which run irregularly. As in the case of workingmen's compensation, prevention should be stressed. (2) Unemployment insurance will place a moderate income in the hands of the unemployed and their families. This will increase their purchasing power and help keep the family from pauperization. No state in this country has, up to date (1930), passed an unemployment insurance measure. England and Germany insure a large percentage of their workers against unemployment. The workers as well as the employers in these two countries contribute toward the insurance fund. In England the government adds a subsidy; and, in Germany, the government pays the expenses of the system and also provides emergency funds. Neither measure furnishes any potent incentive to employing firms for regularizing their industries. A bill introduced into the Legislature of the State of Wisconsin was drawn with prevention of unemployment in view. As in the case of compensation for accidents, the employer who ran his plant regularly would pay a lower rate into an insurance fund than his competitor who did little to regularize the operation of his plant. A definite financial incentive would be given to each employing firm to stabilize its business. The bill provided for payment of one dollar per day to those unemployed for lack of work, for a period not to exceed thirteen weeks in one year.

Any public unemployment insurance plan confronts two obstacles. (1) How can the willingness to work be tested? In England and Germany excellent networks of public employment bureaus have been established. To these the unemployed must apply before he becomes eligible to receive unemployed benefits. If the bureau cannot find a suitable job, the workless person is in line to receive insurance benefits. (2) What is suitable employment? Shall a skilled worker out of a job be obliged to take one requiring little skill if no other be available, or forfeit his rights to benefit? In clear cases, the answer is No, but in actual practice many border cases will appear to perplex the authorities. Any unemployment insurance plan which can be well administered must be supplemented by a good system of public employment agencies.

In the clothing industry, under an agreement between a union and groups of employers, several plans for private unemployment insurance are in operation. Both workers and employers pay into a fund out of which benefits are paid in case of unemployment due to lack of work. A few unions pay unemployment benefits to their members. Leeds and Northrup Company, of Philadelphia, after working out a plan for regularization, added an insurance fund to compensate employees who might be laid off from time to time because of lack of work. The company provides the fund.

Attitude of Organized Labor toward Labor Legislation. Organized labor has favored laws regulating child and woman labor, but it has been lukewarm in regard to laws limiting the hours of labor of men. The spokesmen of organized labor feel that more can be accomplished by the pressure of union bodies than by legislation. A shorter working day obtained by direct union action adds to the prestige of the organization. Organized labor favors laws in regard to safety and sanitary conditions in factories; it stands for social insurance measures. The limitation of the power of judges to issue injunctions is favored. Laws aimed at discrimination against union men are, of course, urged. Organized labor feels that the judges in our courts are by training and experience out of touch with working people and inclined to be unsympathetic toward unionism. Labor insists that many court decisions would be more favorable to the working people if the judges had greater opportunity to understand the attitude of workers and to sense the dangers—economic and otherwise—which confront the workers individually and as a class. Organized labor believes that it should be represented in administrative bodies having to do with the execution of factory legislation. Such demands seem reasonable.

QUESTIONS

1. We have a dual form of government in the United States. Explain.
2. How is a law declared to be unconstitutional?
3. Give arguments in favor of a workingmen's compensation law.
4. Give arguments for and against an old-age pension for indigent industrial workers.
5. Do you favor a compulsory health insurance law in your state? Why?

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CHAPTER XXXI

PUBLIC EXPENDITURES

Public Finance. This branch of economics deals with the methods of obtaining governmental revenues, their expenditure, and the administration of public business. An individual plans his expenditures to fit his income, but governmental units usually plan for projects requiring expenditures, and, after doing so, endeavor to prepare revenue measures, frequently supplemented by borrowing, to raise the necessary funds to meet the expenditures voted. Well-governed governmental units prepare a budget containing careful estimates of the financial requirements of the different departments of the government, and also specific plans for raising necessary funds by taxation or by borrowing. The budget is usually prepared by the executive or administrative department. It is considered and enacted into law, with or without modification, by the legislative branch of the government.

The Increasing Functions of Government. Governments are not abstractions. They are managed and directed by fallible and often misguided human beings. Good government in a republic can only be assured by eternal vigilance on the part of an alert and capable electorate. As more and more activities have been put into the sphere of governmental control and direction, the personnel of the public service has multiplied and the expenditures have steadily mounted to higher and higher levels. During the century which has elapsed since 1830, wealth, total and per capita, has greatly increased, and governments have assumed certain functions which were formerly carried on by private enterprise and paid for out of private funds. The tax-supported free school system is one such function which now demands large public expenditures. In 1830 there were few free public schools in the United States. The burden of public expenditures is not excessive in this country, but the expenditures are so considerable and betray such a consistent tendency to increase that extravagance, waste, and inefficiency in public operations should be reduced to a minimum. Brains, initiative, and persistent performance are as essential in the governmental service as in private business. Political pull, graft, red tape, listless routine, and mediocrity are major ills in the public service.

The oldest function of government is that of protection against foreign attacks and internal disturbances. A major fraction of the expenditures of our federal government is for war—past, present, and prospective. But an especially significant increase in recent decades has occurred because of the taking on of "developmental functions"—education, public recreation, regulation of private business, care of the defective and indigent, and aid given to private industry through research and statistical services, such as are carried on by the national and state departments or bureaus of commerce, labor, and agriculture.

A striking comparison of the activities of an American city in 1922 and a half-century earlier has been made by a student of municipal affairs. In Detroit, in 1874, approximately a million dollars was expended for the conduct of 33 public activities. "There were no telephones, auto trucks, germ theories of disease, psychopathic clinics, aviation fields, sewage disposal plants, safety engineers, platoon schools, and streets with twelve-inch foundations. The city government was a rather simple and inexpensive affair, doing pretty much as cities were doing a century, or perhaps even ten centuries, before." . . . But the modern city with congestion of population tells a different story. "This congestion of population has created new needs—traffic control, street widening, ample fire protection, additional police, better street lighting, and adequate water-supply. Higher standards of living have compelled the maintenance of parks, boulevards, and museums, increased educational facilities, libraries, and concerts. Increasing humanitarianism has prompted the establishment of playgrounds, better prisons, care of the sick, and many activities unknown to citizens and officials of a generation ago." And the old activities are more complex and expensive. "In consequence, the per capita cost of government in large cities has quadrupled and public debts have multiplied. City government, formerly simple and cheap, has necessarily grown technical and costly. The new city is a great business corporation, employing thousands of men and women, owning vast properties, equipment, and supplies; borrowing large sums on credit; and engaging in extensive business for the benefit of the community." [1]

Growth of Governmental Expenditures. As the functions and services of governmental units multiply in this machine age characterized by increasing density of population and growing interdependence, the cost of carrying on the activities of government increases. Doubtless there is much of inefficiency and waste in the exercise of governmental functions, but with efficiency the cost of carrying on the essential functions of government would be on the up-grade. The following tables give an indication of the rising cost of government.

GROWTH OF FEDERAL EXPENDITURES IN THE UNITED STATES [2]

YEAR	TOTAL ORDINARY FEDERAL EXPENDITURES	PER CAPITA ORDINARY FEDERAL EXPENDITURES
1830	$15,000,000	$1.15
1840	24,000,000	1.42
1850	39,500,000	1.71
1860	63,000,000	2.01
1870	310,000,000	8.03
1880	268,000,000	5.34
1890	318,000,000	5.05
1900	521,000,000	6.85
1910	694,000,000	7.52
1919	18,952,000,000	180.75
1920	6,142,000,000	58.10
1926	3,063,000,000	26.30

(Expenditures for Panama Canal, public debt, and postal service omitted.)

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[1] Upson, L. D., *The American City*, November, 1922.

[2] See Adams, H. C., *Finance*, p. 92; Bye, R. T., and Hewett, W. W., *Applied Economics*, p. 445.

GROWTH OF STATE AND LOCAL EXPENDITURES[1]

YEAR	STATE EXPENDITURE	LOCAL EXPENDITURE (146 CITIES)
1915	$494,907,000	$996,062,000
1919	640,403,000	1,113,600,000
1922	1,280,320,000	1,984,322,000
1925	1,614,562,000	2,549,149,000

EXPENDITURES OF FOUR LARGE CITIES[2]

	1915		1919		1922	
CITY	TOTAL	PER CAPITA	TOTAL	PER CAPITA	TOTAL	PER CAPITA
New York	$244,563,000	$45.85	$245,963,000	$44.81	$389,276,000	$66.66
Chicago	81,446,000	33.97	96,222,000	26.22	163,080,000	57.56
Cleveland	26,345,000	41.20	29,958,000	39.29	59,039,000	69.09
Los Angeles	25,511,000	56.42	25,140,000	45.58	61,822,000	99.34

The expenditures of European countries have followed about the same course as those of the United States. It has been estimated that the public expenditures of European nations increased from $955,000,000 in 1830 to $3,600,000,000 in 1890—an increase of 360 per cent in sixty years. The increase in expenditures per capita was from about $4 in 1830 to over $11 in 1890.[3] The World War placed extraordinary burdens upon nearly all European countries.

Purpose of Public Expenditures. The following table, based upon estimates of the National Industrial Conference Board, presents in some detail the functional distribution of expenditures made in 1926 by the federal and the state and local governments.[4]

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[1] Keezer, D. M., Cutler, A. T., and Garfield, F. R., *Problem Economics*, p. 586.

[2] Hunter, M. H., *Outlines of Economics* (rev. ed.), p. 26.

[3] Adams, H. C., *Finance*, pp. 86–87.

[4] *Cost of Government in the U. S.*, p. 11; Ely, R. T., *Outlines of Economics*, (5th ed.), p. 743.

PURPOSE OF EXPENDITURE	FEDERAL	STATE AND LOCAL
General Government	$354,800,000	$515,100,000
Protection	1,363,400,000	720,100,000
Education	15,600,000	2,242,900,000
Highways	102,600,000	1,544,600,000
Economic Development	151,700,000	64,100,000
Social Welfare	71,400,000	981,400,000
Miscellaneous	2,200,000	158,700,000
Public Utilities	169,600,000	487,300,000
Debt Redemption	873,100,000	337,600,000
Interest	831,900,000	639,500,000
Total	$3,936,300,000	$7,691,300,000

The National Bureau of Economic Research estimates (1930) that all governmental units in the United States spend about $3,500,000,000 annually for public works.

More detailed statements in regard to the expenditures by governmental units of the State of Ohio are presented in the following tables. Ohio has nearly 4,700 governmental units expending funds. In 1926 their expenditures, including those made by publicly operated utilities, amounted to $422,200,000, divided as indicated below.[1]

	AMOUNT	PERCENTAGE
State	$49,022,000	11.6
Counties	88,848,000	21.0
Townships	8,855,000	2.1
Cities	135,209,000	32.1
Villages	14,020,000	3.3
School Districts	126,250,000	29.9
Total	$422,204,000	100.0

These totals of state and local expenditures and of city expenditures were divided according to governmental purposes as indicated in the next two tables.

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[1] *The Ohio Citizen*, March 27, 1928, issued by the Ohio Institute.

EXPENDITURES OF OHIO, 1926

	AMOUNT	PERCENTAGE
General Government	$25,702,000	6.1
Protection to Person and Property	25,758,000	6.1
Agriculture and Conservation	3,618,000	0.9
Highways	101,392,000	24.0
Sanitation	19,467,000	4.6
Health	8,420,000	2.0
Public Welfare	19,400,000	4.6
Education	129,205,000	30.6
Recreation	3,891,000	0.9
Miscellaneous and Undistributed	6,687,000	1.6
Public Utilities	32,290,000	7.6
Interest	46,374,000	11.0
Total for Ohio	$422,204,000	100.0

EXPENDITURES OF OHIO CITIES, 1926

	AMOUNT	PERCENTAGE
General Government	$6,812,000	5.1
Protection to Person and Property	19,789,000	14.6
Highways	32,978,000	24.4
Sanitation	14,864,000	11.0
Health	3,672,000	2.7
Public Welfare	1,085,000	0.8
Education (Universities and Libraries)	2,626,000	1.9
Recreation	2,824,000	2.1
Miscellaneous	3,011,000	2.2
Public Utilities	24,632,000	18.2
Interest	22,916,000	17.0
Total Expenditures	$135,209,000	100.0

Public Debts. The major fraction of all public debts is incurred because of extraordinary expenditures in times of war, or for the building of various kinds of public works, such as roads, canals, public buildings, and utilities operated by public authorities. In this country the debts of the federal government have been incurred because of war. The state and local debts have been incurred mainly for public works and buildings, and for commercial enterprises, such as municipal waterworks. During war time the federal government has always resorted to borrowing in order to supplement increased taxation. The War of 1812, the Mexican War, the Civil War, the Spanish-American War, and the World War represent peaks in federal expenditures. After each war period the government has practiced debt reduction. Immediately prior to the World War the federal indebtedness amounted to approximately $1,000,000,000. The exigencies of the War carried the debt to the unprecedented height of over 25 billions of dollars. Of this huge total, however, nearly 10 billions of dollars were loaned to the allied countries. On June 30, 1925, the interest bearing debt had been reduced to approximately 20 billions of dollars.

The indebtedness of the American states is relatively small, but the sum total has increased materially in recent years. In 1926 the total debt for 250 American cities having a population of over 30,000, was $7,284,457,950, and the funded (bonded) debt was $6,376,280,272. The funded debt of the 250 cities amounted to $183.73 per capita.[1] In 1919 the gross debt of 227 cities of over 30,000 population was nearly $4,000,000,000, or $113 per capita.[2] Between 1912 and 1922 the total debt of the federal government increased 762 per cent; of the states and local governments, 163 per cent.[2]

Public officials and legislators are prone to yield to the temptation to use the credit of the government for funds instead of increasing the rate of taxation. Later, interest and repayment of the debt will demand higher tax levies, but that burden may be met by a new administration. In certain cities the funded debts have become excessive. It will be recalled that in 1926 the various governmental units in Ohio spent 11 per cent of their money in interest payments. A federal or state bond is merely an interest-bearing promise to pay a specified sum at some future date, and the owner cannot, without the consent of the governmental authorities, sue for payment in case of default. The security back of a governmental bond is the credit and financial integrity of the government, backed by the right to tax the persons and property within the jurisdiction of the governmental unit concerned. In this respect public bonded indebtedness differs markedly from mortgage bonds issued by private corporations.

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[1] *Financial Statistics of Cities*, pp. 59, 408.

[2] Jensen, J. P., *Problems of Public Finance*, pp. 465, 467.

QUESTIONS

1. How would you determine whether there has or has not been an increase in the real burden of public expenditures in your state?
2. Should a governmental unit make plans for paying its indebtedness?

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BYE, R. T., and HEWETT, W., *Applied Economics*, Ch. 21.
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CHAPTER XXXII

PUBLIC FINANCE

Sources of Public Revenue. With the rapidly increasing expenditures of governmental units, the problems centering around justice in distributing the burdens incident to obtaining the revenues necessary to meet expenditures become of growing importance. The chief sources of public revenues may be classified as follows:[1]

1. Direct Revenue:
    - (*a*) From Public Domains
        - I. Sale of Land
        - II. Sale of Products
    - (*b*) Public Industries
    - (*c*) Gifts
    - (*d*) Confiscations and Indemnities
2. Derivative Revenue:
    - (*a*) Taxes
    - (*b*) Fees
    - (*c*) Assessments
    - (*d*) Fines and Penalties
3. Anticipatory Revenues:
    - (*a*) Sale of Bonds and Short-Time Notes
    - (*b*) Issuance of Paper Money

Direct revenue is obtained from the business operations of the government. The chief source of governmental incomes of modern nations is derivatory, and the most important of the derivatory sources is taxation. The debts assumed under anticipatory revenues are later to be paid out of direct or derivatory revenue.

Definitions. The prime source of income of a modern government is taxation. A tax is a compulsory contribution levied by governmental authority without regard to individual benefits derived therefrom. A fee is a payment covering the cost of some governmental service which is of actual or assumed special benefit. The payment for recording a deed or a mortgage is a fee. It is supposed to pay the cost of the service, and the recording of the deed or mortgage affords special protection or benefit to the holder of the document. A special assessment is used in the United States chiefly in payment for the construction of pavements, sidewalks, and sewers. The cost of the improvement is allotted to the owners of the real estate which is benefited. Usually this is confined to the property on both sides of the street paved or on which sidewalks are built. In the case of sewers, the cost may be spread over a wider territory. A special assessment is a compulsory contribution equal to the cost of the improvement and presumably levied according to special benefits derived from the improvement.

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[1] Adams, H. C., *Finance*, p. 227.

A public price is a price paid for commodities, such as timber, sold by a governmental unit in competition with private firms. The element of compulsion is missing. A rate required for water furnished by municipal water works or for postage by the United States Post Office usually is very closely related to the fee. If the individual receives the service, he must pay a definite rate which ordinarily covers the cost. However, the post office or a municipal utility publicly owned and operated might charge rates which would yield a large profit. In this event, the contribution would approach the field of taxation.

A direct tax is one levied so that the person paying the tax to the governmental officials actually bears the burden of the tax. An indirect tax is one in which the burden is, or may be, shifted to another. A tariff duty often raises the price of the article imported by the amount of the duty. In that case, the tax is shifted from the importer who pays the governmental officials to the consumer through the medium of higher prices for the article upon which the duty is imposed. Customs duties and internal revenue taxes are forms of indirect taxes. A net income tax is a direct tax. It cannot be shifted; the incidence of the tax is upon the person who actually pays the tax. In the case of the tariff duty, mentioned above, the tax is shifted; its incidence is upon the consumer. Sometimes a tax can be partially shifted.

Justice in Taxation. Since fees, special assessments, public rates, and public prices are minor sources of public revenues, and since special benefits are involved, the problem of fairness is rarely considered in connection with these sources of revenue. Taxation, however, constitutes considerable direct and indirect burden upon the citizen without the solace of direct individual benefit. To levy taxes justly is a problem which must be faced. In actual practice expediency plays a large rôle in determining the kind of taxes that shall be levied. A tax which must be paid to governmental officials in a lump sum annually or semiannually is not easily accepted. Its burden is clearly visible, but if the tax is levied upon the sale or importation of an article and appears unrecognized in the price every time a unit of the commodity is purchased, few notice the tax. The pocketbook is opened frequently, gently, and almost painlessly. This indirect or unseen tax is dear to the heart of the legislator who looks forward to re-election.

Theoretically, it is quite generally assumed that taxes should be levied in accord with the ability to pay. Much difficulty and confusion arise when we are required accurately to measure the ability to pay. Ordinarily it is assumed that income or property is the basis for determining one's ability to pay taxes. Should the tax rate be the same whether a person has a large or a small income or amount of property, or should the rate increase or decrease with the amount of the income or property? In technical terms, should rates be proportional, progressive, or regressive? The customary answer is that justice requires the rate to be progressive. A person having an income of $50,000 per year should pay a higher rate than one having an income of $5,000. If the rate is 5 per cent for an income of $5,000, it should be, say, 10 per cent for an income of $50,000. However, no definite criterion has been generally accepted for the accurate measurement of ability to pay. Generally speaking, income taxes in the United States are progressive, but property taxes are proportional. Expediency in the form of difficulty in collection militates against an extremely high progressive income tax. It is much more difficult to prevent evasion in the case of a 50 per cent income tax than in the case of a tax of 5 per cent.

Tests of a Good System of Taxation. Adam Smith in his famous book, *The Wealth of Nations*, developed four famous canons in regard to taxation:

1. Every citizen should contribute to the support of government in proportion to ability to pay.

2. Taxation should be definite and not arbitrary. "The time of payment, the manner of payment, the quantity to be paid ought to be clear and plain to the contributor, and to every other person."

3. Payment of taxes should be required at convenient places and times.

4. Taxes should be devised which are easy to collect and administer. A large fraction of the payments should not go to pay the expenses of collection and administration.

The General Property Tax. The general property tax has been the chief source of revenue for American states and local governmental units. It is a tax, as its name implies, upon all kinds of real and personal property. In colonial and pioneer days, when nearly all property was in the form of real estate and tangible personal property, this tax was fairly equitable, but today it is distinctly bad. Certain of the states more progressive in tax matters have eliminated or reduced the use of the general property tax for state purposes, but it is quite generally used as a significant source of city, county, township, and school-district revenue. The general property tax may be condemned in theory and in practice. However, there is little indication that its use will not be continued by the local taxing districts.

The general property tax does not conform to the theory of ability to pay. The person receiving a large salary is not taxed unless he also owns taxable property. The assumption is made that property, whether it does or does not bring in an income, measures ability to pay. Whether a taxpayer's property is considerable or little, the tax rate is the same. Intangible property, such as mortgages, bonds, and corporation stock, is taxable in the hands of the owner, and the property mortgaged, or that represented by the stock, may also be taxed where located. The farm may be taxed and the mortgage also. In case of a partnership, the property is taxed; but organize the business as a corporation, and, unless the stock is specifically exempted from taxation, the taxing authorities will proceed to tax both the business property and the stock. Obviously the latter is merely a claim to the former. Intangible property is easily concealed. In most states where the old and unmodified form of the general property tax continues to prevail, a large percentage of the intangible property is never reported for taxation. As a consequence, the general property tax usually becomes one upon real estate and certain forms of tangible personal property, such as cattle, tractors, automobiles, and household furniture. Gross inaccuracies in assessing real estate and personal property have been all too common.

In certain states a classified property tax has been tried. The tax rate is placed quite low for intangible personal property, higher for tangible personal property, and still higher for real estate, which cannot easily be concealed. After adopting a classified tax plan, additional amounts of intangible property usually appear upon the records of the taxing authorities. If the general property tax is retained, it should be used for local revenues only, and better assessing methods and more capable assessors should be utilized. Either it should fall upon real estate only or a classified system should be adopted. The advocates of "the single tax" propose to tax only the income from land, and would take all of land rent. This plan is, however, a reform rather than a purely fiscal measure.[1] There is merit in going so far on the road toward the single tax as to tax buildings, machinery, and other forms of capital at a lower rate than land. Under the present methods we penalize quite heavily the man who builds a new home or apartment house, but if he allows the vacant lot he owns to grow billboards and burdocks, we are lenient in local taxation. To reverse this traditional program would be not undesirable.

The Income Tax. The income tax is now used by the federal government and by sixteen states. Its use in foreign countries is quite general. The income tax is theoretically a good tax; it squares with the generally accepted theory of ability to pay. Progressive rates are ordinarily applied. The federal government considers as income only the actual receipt of payments. The owner of a house living in it is not considered to be receiving an income therefrom. The tax is assessed by the federal authorities through personal declaration under oath, checked in certain cases by information at the source of payments, in regard to salaries and interest payments on bonds.

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[1] See Chapter on Proposals for Economic Reform.

The Inheritance Tax. The inheritance tax is levied on the transfer of property to heirs upon the death of the owner. The federal government and a large number of American states levy such a tax. The former levies upon the estate as a whole, while the states levy upon the inheritance going to an heir. The tax is usually progressive from two points of view—the larger the estate or the inheritance the higher the rate, and the more distant the relationship of the heir to the deceased, the higher the rate. Exemptions of varying amounts are also allowed. This tax is easily collected; is not, except in special cases, burdensome; cannot easily be evaded; cannot be shifted; and the income, in the case of a large taxing unit, is fairly definite and regular. Under the present federal law credit up to 80 per cent of the amount due may be allowed for payments of a state inheritance tax. This provision has greatly reduced the federal revenues derived from the estates tax.

Excise Duties. Excise duties, or internal revenue duties, are levied upon the production or sale of certain commodities. In peace times excise duties are usually levied upon only a few commodities or processes. In this country taxes on liquors and tobacco have furnished the major portion of the revenues from excises. In times of war the number of commodities taxed has been multiplied. These duties are usually collected by means of a stamp which is placed on the container and which must be broken before the container is opened. If the article is sold without the stamp being affixed that is evidence of evasion. The tax is ordinarily shifted to the purchaser in higher prices. As it is paid every time a purchase is made, the tax is not as a rule considered burdensome. When the articles taxed are few in number and are commodities widely used, the tax becomes a fairly reliable and considerable source of revenue. As in the case of tariff duties, an internal revenue tax may be used to modify consumption and industry. The internal revenue tax on the issuance of paper money by state banks was not intended to be a revenue measure. It was passed for the purpose of forcing state banks to desist issuing bank notes. An internal revenue tax on phosphorus tipped matches was also intended to be prohibitive.

Tariff Duties. A tariff for revenue only, placed upon a few articles which are generally demanded and which are imported, is in times of peace a fairly reliable source of governmental income. But a tariff which combines protection and revenue is much less desirable from a purely fiscal point of view. In time of war, when foreign trade is interfered with, a tariff duty becomes unreliable as a source of revenue.

Poll Tax. A poll, or head tax, is levied upon each individual in a certain group or community. It is usually levied at a proportional rate. Obviously, when levied as a flat rate, it has no direct relation to ability to pay. A few states use it as a necessary qualification for casting a ballot. The poll tax is of minor importance in the United States.

Corporation Taxes. The corporation is often subjected to a heavier burden of taxation than is the partnership. The following forms of taxation are used in taxing corporations:

Incorporation tax or fee
Taxes on the stocks and bonds
Gross receipt taxes
Net income taxes
Franchise tax

The incorporation fee or tax is paid once only. It is paid when the corporation is incorporated. The payment is for the privilege of obtaining articles of incorporation. States in which the old general property tax law is on the statute books try to tax the tangible property of the corporation where it is located, and also the stocks and bonds of the corporation as the personal property of the taxpayers. In this fashion, the owner of corporation securities may suffer double taxation as compared with a partner in a partnership. The property of a partnership would be taxed where the business and property are located. A corporation should either be taxed upon its property and the stocks and bonds in the hands of the owners be exempt, or it should be taxed upon the market value of the stocks and bonds and its tangible property exempted. The gross receipts tax has been applied to certain corporations in place of the general property tax. It is not a fair tax unless there is a clear parallelism between net and gross income, but the gross income of the typical corporation can be ascertained much more easily and accurately than the net income. The latter, however, squares with the ability-to-pay theory. The net income tax levied upon a corporation is theoretically a good tax, but the administrative difficulties are many. The federal government now levies an income tax on the net income of a corporation. A franchise tax is levied upon corporations, such as public utilities, which are granted franchises to use the streets of cities and towns. If a successful corporation is allowed to charge rates in a monopolistic fashion, it will realize more upon its investment than would be made under competitive conditions. This extra return capitalized gives a valuation to the franchise granted by the state or the municipality. Regulation carried out so as to allow only an adequate return upon the investment will eliminate monopoly profits and the franchise value will be reduced practically to zero.

The Federal System of Taxation. Our federal government depends chiefly upon four means of income—the income tax, internal revenue or excise duties, tariff or customs duties, and the inheritance tax. Unlike individuals, governmental units decide upon the expenditures necessary for the year or the period under consideration, and if the expenditures are estimated, an attempt is made to provide adequate sources of revenue. This process is budget-making. Previous to 1913 the revenue of the federal government came chiefly from tariff duties and internal revenue taxes on liquors and tobacco. Since the adoption of the income-tax amendment to the constitution, the income tax has become of increasing importance as a source of federal revenue. Nearly two-thirds of the federal tax revenues were received in 1928 from the corporation and the personal income tax. The estates tax contributed less than 2 per cent. The remainder was about equally divided between customs duties and the various forms of excise taxes. A clause in the Federal Constitution forbids the levy of a direct tax, such as a property tax, unless apportioned among the states in proportion to population. For example, if the federal government decides to raise $200,000,000 by a property tax, the fraction of the total to be raised in any state would be determined by the ratio of its population to the total population of the nation. Applied in this manner, the tax is unfair and difficult to collect. The federal government has levied the direct tax on property only five times in our history. The last attempt was made during the Civil War. The federal authorities are able to levy an income tax directly since a constitutional amendment was adopted in 1913 which provides: "The Congress shall have power to lay and collect taxes on incomes from whatever source derived without apportionment among the several states and without regard to any census or enumeration." Nevertheless, up to date, interest on state and local bonds and salaries of state and local officials are exempted from the provisions of the federal income tax.

State and Local Taxation. Under our Federal Constitution the systems of taxation of the federal and the state governments will of necessity be dissimilar. For example, the states cannot levy export or import duties, and the federal authorities, as has been indicated, are practically obliged to abstain from using the general property tax. Within the limitations imposed by the Federal Constitution, each state may frame its own system of state and local taxation. There is consequently little of uniformity and coördination. In certain cases unfair duplication of levies by two or more states upon the same property or income occurs. In practically all states the backbone of the local scheme of taxation is the general property tax, and in many of the states, the revenues of state government itself are derived from the same tax. In recent years there has been a considerable tendency to supplement the general property tax by other forms of taxation, such as the inheritance tax, the income tax, taxes upon corporations, and license payments. All states now levy a gasoline sales tax, the proceeds of which are usually devoted to building and maintaining good roads. The total receipts from taxes, special assessments, fines, etc., of American cities having a population of over 30,000, was, in 1926, $2,125,421,456. Of this total, $1,900,850,097 was obtained through taxation; $1,747,163,136 was the contribution of the general property tax.[1] Of the total revenue receipts of the state and local governments in Ohio, 70.42 per cent was received in 1925 from the general property tax.[1] Of the state revenue receipts, 7.54 per cent were derived from the general property tax.

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[1] *Financial Statistics of Cities* (1926), p. 208.

The following tables, derived from statistics furnished by the federal government, disclose the sources of income of state and municipal governments and the increase in total revenue per capita in recent years.

PER CAPITA RECEIPTS OF STATES

YEAR	TOTAL	GENERAL PROPERTY TAX	SPECIAL TAXES	BUSINESS AND LICENSES	POLL TAXES	EARNINGS	ALL OTHERS
1915	$ 4.60	$1.89	$0.84	$0.95	$0.03	$0.51	$0.43
1923	11.38	3.22	2.00	3.09	0.06	1.11	1.90

PER CAPITA RECEIPTS OF MUNICIPALITIES

YEAR	TOTAL	GENERAL PROPERTY TAX	OTHER TAXES	SPECIAL ASSESSMENTS	EARNINGS OF ENTERPRISES	ALL OTHERS
1915	$30.00	$18.73	$2.36	$2.54	$3.03	$3.34
1923	54.78	36.27	2.94	2.92	5.68	6.97

The Burden of Taxation. The increasing expenditures of governmental units demand augmented revenues derived from old or new sources. The burden of a taxing system is difficult to measure accurately. A people with large per capita incomes can easily bear without great sacrifice a high rate of taxation. Taxes which fall upon the receivers of small incomes may constitute grievous burdens, while taxes levied on the progressive principle may not seriously discommode individuals receiving large incomes. The following statistical tables will aid in picturing the growing volume of taxation. According to the first table, it will be noticed that the state and local taxes which are not directly affected by war steadily increase.

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[1] *The Ohio Citizen*, January 10, 1928, p. 5.

VOLUME OF TAXATION IN THE UNITED STATES[1]

(IN MILLIONS OF DOLLARS)

TAXING UNIT	1890	1913	1921	1924	1926
Federal	$374	$668	$4905	$3193	$3207
State	96	307	783	1017	1264
Local	405	1219	3150	3611	4084
Total	$875	$2194	$8838	$7821	$8555

During the same period the estimates of the percentages of the total national income taken by means of taxation show that an increasing fraction is absorbed by governmental units in the form of taxes.[2]

PERCENTAGES TAXES ARE OF THE NATIONAL INCOME

YEAR	FEDERAL	STATE	LOCAL
1890	3.1	0.8	3.3
1926	4.1	1.6	5.2

An estimate of the burden of taxation in other countries is presented below.

PERCENTAGES TOTAL TAXES ARE OF THE NATIONAL INCOME[3]

COUNTRY	1913–14	1925–26
Great Britain	11.2	24.0
France	13.3	30.0
Italy	12.8	25.0
Belgium	7.8	17.0
United States	6.4	11.0

In the State of Ohio during a period of eighteen years, ending 1928, the population increased 1.38 times; the value of taxable property, 5.4 times; general property tax levies, 4.4 times; and special assessments, 11.7 times.[4]

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[1] *Cost of Government in the U. S.*, 1925–26, pp. 70, 76, issued by the National Industrial Conference Board.

[2] *Ibid.*, p. 77.

[3] Fisk, H. E., *Inter-Ally Debts to the U. S.*, p. 82.

[4] *Bulletin of Ohio Chamber of Commerce*, May, 1929.

Questions

1. What is the general property tax?
2. Do you favor a progressive or a proportional income tax? Why?
3. Why does the tax burden tend to increase?
4. What is a good tax?
5. What happens when a tax is shifted? What is the incidence of a tax?

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CHAPTER XXXIII

PROPOSALS FOR ECONOMIC REFORM

Reform Movements. For ages men have been eagerly searching for ways and means of bettering conditions here and now. Utopia builders have been a multitude. With fanatical zeal they have urged particular modifications in the social or the economic structure of their time as panaceas for all the ills which afflicted the people. Many and different Utopias, from Plato's *Republic* to Bellamy's *Looking Backward*, have been formulated by dreamers and thinkers of a variety of mental caliber and imaginative capacity.[1] The United States has been favored with its share of social reformers. In this chapter some of the noteworthy attempts at economic reform will be briefly outlined. Any reform program which has a chance of successful realization must take into account the facts and forces of human nature; it must appeal to incentives which make for efficiency. Many reform movements point eagerly toward ease, plenitude, and quietude as the goals of human endeavor. It is probable that this view is based on an incorrect interpretation of human nature. Normal people are attracted by adventure, by struggle against obstacles, and by opportunity to attract the attention and approbation of fellowmen.

A Chart of Reform Movements. Reform movements may be graphically presented as to their attitude toward individualism or collectivism. The extreme of individualism may be represented as one pole of a magnet and collectivism as the other pole. The two poles have one element in common—both vigorously attack the present order. While the various groups nearer the middle of the chart accept the capitalistic order, they desire to bring about certain changes which they assert will make for improvement and for social harmony.

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[1] See the writer's *Organized Labor in American History*, pp. 8–9.

Individualism Anarchism
Syndicalism

The Single Tax

Liberalism

Conservatism

Progressivism
A Program for Industrial Coördination

State Socialism
Guild Socialism
Marxian Socialism
Utopian Socialism
Bolshevism
Collectivism Communism

Anarchism. The anarchists wish to put an end to all coercive governmental authority. All united or coöperative endeavor would be purely voluntary under a system of anarchism. The American pioneer who pushed into the wilderness far from the centers of population was impatient of governmental interference or regulation; he was almost invariably an extreme individualist. The anarchist has turned his eyes toward the past. He ardently wishes for a return to a condition which was feasible before modern industry and trade developed and before dense populations appeared. To the anarchist all governmental regulations, even those clearly in the interest of general welfare, reduce human liberty.

Syndicalism. Syndicalists also repudiate political governmental authority. They would destroy the present forms of government and in their place put some not very clearly outlined form of industrial organization controlled by the workers in each branch of industry. In the United States the Industrial Workers of the World may be classified as syndicalists. This restless and individualistic group would bring about a breakdown of the present order by means of strikes, sabotage, or violence. The anarchists and syndicalists are vehement in their denunciation of things as they are, but they are not clear as to constructive policies. The ethics of the anarchists and the syndicalists are very different from the ethics of the middle class. The syndicalists do not believe in democracy, the ballot box, or private property rights. They scornfully reject practically all the concepts which the conventional middle-class man holds sacred or desirable.

The syndicalists and other ultra-radicals are the product of disillusionment. Representative government, the ballot box, and various economic reform movements have failed to bring into existence the Utopia which the ultra-radicals and the poor have dreamed about. Dissatisfied with slow progress toward the elimination of poverty and the uplift of the masses, they have become hostile toward the employing group, the middle class, and the present form of government. The ultra-radical is a revolutionist. He nurses the hope of an immediate social upheaval. He is impatient of all slow step-by-step progress toward the betterment of mankind.

The home owner and the man with a savings account are not easily led into the ways of the revolutionist. If the great majority of the men and women of our country are to retain the ideals of the middle class and its concept of property rights and business methods, more must be allowed to become property owners and excessive concentration of wealth must be stopped, whether by profit sharing or somewhat similar plans, by the taxation of land values or the progressive taxation of incomes and of inheritances, by the regulation or the nationalization of monopolistic businesses, or by a combination of two or more of these plans, or by some entirely different method. To continue to produce additional propertyless workers and a few billionaires, and to continue to squeeze the middle class between the two, means sooner or later, but certainly, industrial and political chaos.

The Single Tax. The single tax is a land reform measure. Its advocates assert that poverty and monopoly will disappear under the rule of the single tax. All land rent would be taken by the government in the form of a tax. No other form of taxation would be allowed. Improvements on land, such as buildings and fences, would be exempt. There would be no tariff duties, internal revenue taxes, income or inheritance taxes. Speculation in land would end, vacant property would no longer be held out of use for speculative purposes, and land values would be reduced to the vanishing point. Rights to improvements on the land would continue to be bought and sold. Deeds giving the right to the use of land and improvements would be used under the single tax. No sweeping changes in government are contemplated by single taxers. If the single tax program were adopted, its advocates assert that competition would not be destroyed, but would be continued under fair conditions.

The great American advocate of the single tax was Henry George. In 1879 *Progress and Poverty* was printed. In it, Henry George insistently asked why, with progress, does poverty continue? In Henry George's mind poverty persisted because of the private receipt of land rent and the consequent speculation in land. Preceding Henry George, another type of American land reformer was very vociferous. The land reformers of the forties and fifties of last century demanded (1) equality in the quantity of land owned by individuals or families, and (2) that land ownership should be inalienable.

A not inconsiderable number of conservative business men are quite willing to go some distance on the road mapped out by Henry George. A reduction in the tax on improvements and machinery would lower the penalties assessed by the tax collector on business activities. Land is not produced. Its quantity will not be reduced or increased by changes in the tax rate. Why should the man who builds a fine residence be severely penalized in taxes for so doing while the owner of a near-by vacant lot pays little? By placing an added tax on land and reducing or eliminating the taxes on buildings, landowners would be stimulated to build more buildings. When landlords compete for tenants, the poor and insanitary buildings will be without tenants. Many persons can see desirable features in reducing the tax burdens on improvements and placing them to a larger degree upon land. Certain provinces and cities in Western Canada have untaxed buildings, and Pittsburgh and Scranton under a state law have partially untaxed buildings.

Liberalism. A liberal in the field of economics emphasizes freedom rather than compulsion on the part of government. He believes that the rule of the majority may be tyrannical. However, the liberal would not, as would the anarchist, eliminate the functions of government. He would use a minimum of governmental authority in order to make it easy for men to adopt programs which tend toward greater equality of opportunity for all. The liberal favors the protection of the weak from an economic point of view by means of child-labor legislation, minimum wage laws, and social legislation; he favors an excellent tax-supported school system; he also favors legislation aimed at the reduction of monopoly profits and unearned gains; he stands for restriction of immigration, for measures improving the health and stamina of the race, and for the conservation of natural and human resources. The liberal holds that progress comes as the result of individual betterment rather than through mass or collective activity and rigid governmental regulations.[1]

Conservatism. Roughly speaking, a conservative is one who is satisfied with things as they are. The conservative is usually a fairly successful individual or one whose position and income would be threatened by considerable changes in the political and economic world. The ultra-radical, whether of the individualistic or the collectivist type, is normally one who has little or nothing to lose by revolutionary changes, and who believes that as a consequence he and his group may benefit greatly. The poor, the beaten, and the disgruntled swell the ranks of the radicals; the prosperous, the successful, and the contented comprise a large percentage of the conservative element. Individuals may shift from one group to another with changes in their personal fortunes. One fairly "sure-fire" plan for reducing radicalism would be to provide each radical with a steady job and a little property.

Progressivism. The sociologists and social workers insist that human society is very complex; consequently, no nicely worked-out, single-track program will build a Utopia. They also insist that law and order obtain in the world of social and political relations as well as in the physical realm. The problem

[1] See Carver, T. N., *Principles of National Economy*, Ch. 56.

is to find methods and formulas which work with, and not against, the forces operating within the realm of social mechanics. The progressives would improve human relations by adopting a step-by-step, multilateral program which would bring about social betterment, particularly for the masses, without revolutionary changes in the present order. A systematic program for industrial and social betterment would include plans (1) for the elimination of great inequalities in wealth and income and the ushering in of an approximation to equality of opportunity, (2) for the reduction of human waste because of sickness, premature death, and accident, (3) for an increase in the national and world output of desirable commodities and services, (4) for the improvement of educational facilities, (5) for providing wholesome recreation and increased leisure for all, and (6) for the reduction of unemployment and for increasing the regularity of industrial operation.[1]

A Program for Industrial Coördination. The exigencies of the World War clearly disclosed to the leaders of American governmental and industrial organizations that our highly individualistic business economy operated in an inefficient and wasteful fashion. The lack of coördinated and harmonious effort became painfully apparent. "Face to face with a world crisis of unprecedented dimensions, it could be discerned clearly that the prime industrial need was an uninterrupted flow of materials essential to the conduct of the war and to the efficiency of the civilian working population. The policy of *laissez faire* was quickly and unceremoniously relegated to the scrap heap; industrial mobilization became the order of the day. The great third party—the public—acting through its agency, the federal government, found it necessary, as never before in this country, to intervene in industry and to direct business affairs for the purpose of reducing friction and lost motion in the business world."[2] In the confusion following the conclusion of the World War and in the speculative era which culminated in the stock-market slump of the autumn of 1929, the lessons of the War period were neglected. But, as we are coming out of the depression of 1929–

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[1] See Carlton, F. T., *Elementary Economics*, p. 206.

[2] Carlton, F. T., *Organized Labor in American History*, pp. 282–283.

1931, our attention is again directed toward the desirability of eliminating jerky methods of doing business, toward the possibility of preventing over-development of industries because of the optimism and lack of vision on the part of industrial leaders, and toward plans for increasing coördination in business activities throughout the nation.

It seems not impossible that within one or two decades, the American people will adopt certain policies looking toward the coördinating and integrating of American industries. A well-organized factory now coördinates the work and output of different departments within the plant. Should not similar steps be taken within the nation, considered as the United States of America, Incorporated, engaged in the gigantic business of supplying the wants of over 122 millions of people? Is not a governor needed to regulate and synchronize the economic engine operated by the American people? Fairly conservative opinion is demanding an "Economic General Staff" and an "Institute of Industrial Coördination." In the case of the railways, considerable control is exercised over the investment program of a particular road. Allocation of investment funds through the action of governmental and banking authorities may not be far distant. Indeed, along this path may lie the possibility of protecting capitalism from the assaults of the Bolshevists and other ultra-radicals.

State Socialism. The advocates of state socialism desire an extension of the powers of governmental authorities in regard to the ownership and operation of business enterprises. They favor the governmental operation of an increasing number of public utilities. The operation of the mint and the post office by the federal government and of water plants by municipalities are steps leading toward state socialism. Many men who may fairly be classified as conservatives are not opposed to a reasonable extension of state socialism.

Guild Socialism. Under guild socialism the government would own many industries but the control of each industry would be placed in the hands of the workers in that industry. The workers of all types would be active partners in the business; the government would be an inactive partner possessing the rights of ownership. Under state socialism governmental officials would assume, under statute laws, the direction and control of enterprises owned by the state, but, under guild socialism, the workers collectively would assume those functions. Under anarchism, and presumably under syndicalism, the political state would disappear, but under guild socialism it would remain as a distributor of functions between the guilds and organizations of consumers.[1]

Marxian Socialism. Marxian, or scientific, socialism is the most significant form of socialism. The socialists maintain that the private receipt of rent, interest, and profit (above wages of management) is unjust. They agree with the single taxers in regard to rent, but differ fundamentally as to interest and profits. The socialists assert that under the capitalistic system, the many are exploited in the interest of a few. Wage workers produce more than they receive in wages; the remainder goes to the owners of land and capital in the form of rent, interest, and profits. The socialists would have the government take over all public utilities and other large industries, and operate them in the interest of the community. They do not believe in equality of wealth and income, but they do stress equality of opportunity. With equality of opportunity, the socialists assert, great inequalities in income and wealth would disappear. Socialists believe that business competition is very wasteful. They would strengthen, rather than weaken, the functions of government. The followers of Marx believe that socialism will, in the normal course of events, displace the present order.

Marxian socialism made its appearance in the United States soon after the Civil War. In the seventies a political party, called the Socialist Labor party, was organized. In 1879 a local group of the party elected three aldermen in Chicago. In 1896 the Socialist Labor party candidate for president polled over 36,000 votes. In 1900 a split developed and the Socialist party came on the stage. The latter has been more successful than the Socialist Labor party. The votes cast for the Socialist party candidates at different presidential elections are approximately as follows:

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[1] Ely, R. T., *Outlines of Economics* (5th ed.), p. 726.

1900	96,000
1904	402,000
1908	421,000
1912	897,000
1916	590,000
1920	920,000
1924	joined with the La Follette group
1928	268,000

The vote cast in 1928 was less than three-fourths of 1 per cent of the total vote. In that year only 21,000 votes were cast for the Socialist Labor ticket.

When the United States entered the World War in 1917, the Socialist party, following the traditional attitude of the socialists, adhered to an anti-war program. A considerable group of prominent socialists left the party declaring that it was pro-German. In 1919 a radical revolutionary faction also left the party. These radicals formed the nucleus of what is now called the Workers' (Communist) party. The Socialist party in the United States is at present composed of somewhat conservative radicals who hope to end the capitalist order by political and evolutionary means.

Utopian Socialism. The Utopian socialist is practically an historical figure only. The typical Utopian socialist wished to form a communistic settlement in some out-of-the-way spot. In this settlement, property and the results of productive efforts would be shared equally, or according to merit or some other arbitrary standard. It was argued that human nature was the product of environment. Place individuals in an environment in which business competition and the struggle for wealth were eliminated, and very soon selfishness and other unlovely traits would be sloughed off. It was further asserted that as soon as the success of the communistic settlements became assured, the outside world would hasten to take the necessary steps for the adoption of the program of the Utopian socialists. In short, it was urged that human nature was easily modified and that men and women were creatures controlled by rational motives.

The Utopian socialist flourished before the days of the psychologist. We are now convinced that human nature is not easily modified, and that a very large percentage of our actions and decisions are not the result of reasoning. We are dominated in a large measure by irrational motives, inherited impulses, and acquired likes and dislikes which membership in a settlement would not easily erase. Many communistic settlements were organized in the United States between 1825 and 1860, but all not primarily of a religious nature were soon registered as failures.

Bolshevism. The Bolshevists are the "adherents of the majority." The socialist movement in Russia was split into two wings before the opening of the World War. The Bolshevists represented the radical wing of the movement. In 1917, after the overthrow of the Czar, they were able to displace a more moderate socialist government. The Bolshevists claim to be followers of Marx. According to the Marxian theory, Russia was not, however, ripe for a revolution ushering in socialism. Only countries far advanced industrially were ready for the social revolution. Russia was, and is, predominately a rural and agricultural, not an urban and industrial, nation. The propriety of classifying Bolshevism as Marxian socialism seems doubtful. It is difficult for Americans properly to appraise the character and achievements of the Bolshevists who have now controlled Russia for over a decade. It is governed by a "dictatorship of the proletariat." Democracy and majority rule have been discarded. For the autocratic rule of the Czars has apparently been substituted that of a group of representatives of the urban workers of Russia. For the terrorism of one class has been substituted that of another. In attempting to bring order out of chaos in Russia, the Bolshevists have struggled against powerful obstacles. The country had been despotically ruled for generations, the World War had greatly weakened the nation, the outside world has been antagonistic, and the peasants and other groups within the nation have not been in sympathy with many of the economic principles and policies of the Bolshevists.

Under Bolshevism, as unfolding in Russia, individual enterprise and initiative are repressed as uneconomic and wasteful. A collectivist or communist régime is the aim. A great communist experiment is being undertaken. The Bolshevist proposes "to unify the economic forces of a nation into a coördinate whole, which would permit the productive process to be conducted according to a general plan, carefully worked out in advance, and directed by the authorities of the socialistic state." [1] The integration of industry and of industrial management is being attempted on a colossal scale. The plan is to put practically all of the industries of a nation, larger in area and in population than the United States, into the hands of governmental authorities. It is a "challenge to the capitalistic faith in the ultimate harmony of confused individual interests and unknown social purposes." [2] The Russian Bolshevists are insisting that the right to satisfy their economic appetites should be withheld from individuals in the interest of the community or the state. The coercive powers of Soviet Russia are being used to force recalcitrant persons to coöperate under this planned economy. Russian workers are "fighters on the economic front." They are to be partially paid "in glory." The opponents of the Bolshevistic régime assert that "forced labor" is employed in Russia. Soviet Russia does not return to the worker in wages "the full product of his labor," as the socialist formula requires.

The Bolshevist group is imbued with the missionary spirit. The leaders of the Russian Soviet state hope to see the spread of the Soviet organization to other countries. Bolshevism is seeking an earthly paradise, and is willing to use compulsion and terrorism in order to accomplish its purpose. Freedom for the individual is not desired. Bolshevism runs directly counter to liberalism and individualism. In the United States a small, but vociferous, group marches under the Russian banner. In 1921 the Workers' (Communist) party was organized. In the presidential election of 1924 its adherents cast over 36,000 votes, and, in 1928, over 48,000. Unlike the American syndicalists—the Industrial Workers of the World—this faction of radicals does not attempt to organize a separate type of labor organization. They propose to "bore from within" the orthodox unions of the American Federation of Labor. However, in recent years, the Workers' party has attempted to organize dual unions.

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[1] Bye, R. T., *American Economic Review*, Sup., March, 1929, p. 91.

[2] Lorwin, L., *ibid.*, p. 120.

Communism. Today communism means not only the ownership and operation of industry in a collective fashion, but also the division, equal or otherwise, of the products of productive efforts—consumption goods—among the members of the communistic group. The Bolshevists of Russia are near-communists. The Utopian socialists, who organized settlements, usually accepted the communistic doctrine of community control and distribution of consumption goods.

QUESTIONS

1. Distinguish between the different reform programs outlined in this chapter.
2. What is a "reform"?

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CHAPTER XXXIV

THE PRESENT TREND

Adaptation to New Conditions. By centering the attention especially upon points presented in the first six chapters, we may be able to catch a glimpse of the general direction of progress in the United States. Nothing seems to be constant except the tendency to change. The unusual of one period becomes the usual of the next. In attempting to understand the present, it must be recalled that the machine and mass production are epoch-making in their effect upon industrial and social life. The functions of the home have been reduced by the coming of the machine and the factory. It is no longer a center of industry or of recreational activities. Income-making is now carried on almost entirely apart from the home. The machine makes certain human traits desirable toward which a more primitive civilization was indifferent. The machine demands accuracy, punctuality, regularity, sobriety, and willingness to do teamwork. These were traits of little import in the pre-machine age. On the other hand, frugality and obedience to authority are being pushed into the background by the upheaval of the machine age. The power-driven machine, unless negatived by scanty resources and dense populations, ushers a people into a position from which a land of plenty for all can be discerned. It is now possible in the United States to produce a sufficiency for a reasonable standard of living for all in a short working day and to provide all workers with fairly comfortable and safe workplaces.

The chief task of colonial and pioneer Americans was the great adventure of subduing a continent. This job required vigor, individual initiative, and independent action. System, methodical planning, and scientific determination were of the future. Rough and ready or rule-of-thumb methods and luck were depended upon to get one over the hard places. Our heritage and the prestige of the pioneer tradition led Americans to emphasize personal liberty and the rights of the individual. Today's America, with its giant factories and huge transportation systems, its specialization, and its interdependence, is ruthlessly pushing us into a new world. Organization, scientific management, regularization, accuracy, and teamwork are industrial requirements in the new and up-to-date business establishments. A newspaper editor with characteristic punch and exaggeration writes: "Our technology is of 1930 model; our institutions are, many of them, of B.C. vintage, with few of them even of nineteenth century origin."

Political and ethical controversies mirror the new situation. The traditional American ideals and practices crystallized during the big westward movement of the colonists and early settlers are feeling the stress of the new day. The growing or adjustment pains are sharp. Germany is much more highly organized, and the German people are more accustomed to disciplinary control. There has been less of objection in Germany to regulation in the interests of efficiency and system than in the United States with its recent background of pioneer life. Under the earlier American dispensation truth was supposed to fall from the lips of those in authority; the machine and science insist that knowledge of facts and forces is the key to the exercise of authority. Authority is only recognized by a generation subjected to the discipline of a machine age when it rests on the basis of harmony with the findings of science.

The machine and mass production are rapidly wearing away many of the old crusts of tradition and of ethical ideas. Like a river as it cuts its way through hard rock in finding an outlet to the sea, the ceaseless pressure of new ways of doing things and of living are slowly wearing down traditional ideas and programs. Engineers with dynamite, dredges, and steam shovels can do a much quicker and a more efficient, if less picturesque, job in making a river channel than can the river left to its own devices for overcoming resistance. In like manner, sociologists believe that legislation, directed public opinion, and education may help in quickly and effectively reducing the opposition to new ideals and new methods and in adapting a people to a strange economic and social environment. In an age of rapid technological progress, social adjustment must be rapid or disaster will overtake civilization.

Since the World War men in Europe and in the United States have awakened to the necessity of changing organizations, plants, and methods to meet new situations. The next thing should be the training of men with open, not closed, minds. We need leaders and followers with open and alert minds ready to anticipate changing conditions. Blind adherence to tradition and custom will spell disaster in the next decades. Adaptability and versatility are important virtues in a world undergoing kaleidoscopic transformation within the compass of a generation. Earlier civilizations began to slip and vanished without understanding the reasons for decay and fall. The scientific attainments of today should enable us to make a diagnosis of the forces making for progress and for decay.

However, in the political and social spheres, we are about in the position that the Middle Ages were in regard to physical science. A large and possibly increasing number of the population are afraid of new ideas and of new points of view. They prefer traditional authority to the disturbing but trustworthy disclosures of science. In the words of a well-known economist and statistician, "Reason, however, has little to do in determining and governing our actions and in the evolution of institutions. The present industrial organization seems to be quite unreasonable in its structure and functioning, and it may well be that unreasonable measures are needed to set it right." [1] The United States is less hampered by inertia and tradition than are Europe and Asia, and it may be less difficult in this country to apply reasonable measures for modifying the economic and social structure of society. Nevertheless, the greater individualism displayed here may prove to be an obstacle in the path of social adjustment.

It has been well said that "the greatest invention of the nineteenth century was the invention of the method of invention." This step was taken in the realm of the physical. The twentieth century bids fair to push this method into the economic and political world. Indeed, it may not be extravagant to insist that it must be done or civilization will be submerged by the uncontrolled forces liberated by technical advance. The revolution wrought by the power-driven machine, by science, and by invention has by no means reached its limit. The problem is not that of staying the hand of science and of machinery; it is that of bringing social institutions and programs into line with physical and chemical progress. The history of civilization indicates that too rapid development in the material realm is usually followed by a backward movement. In the words of a student of history, "The rapidity with which our present civilization has been rising leads to the suspicion that this danger peak is being approached." Our problem is to avoid a new Dark Age.

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[1] Meeker, Royal, *Harvard Business Review*, July, 1930, pp. 393–394.

Many of our troubles today are centered around the problem of keeping our complex industrial machinery in steady operation and properly directed. It has been suggested that the Roman Empire declined and split into fragments because it became too large and too complex for the intellects of the period to direct effectively. Is political and industrial America face to face with a similar dilemma? The student of science and of engineering is inclined to answer in the negative. However, merely being optimistic does not cure the ills of maladjustment and of unemployment. American industry is complex and it is not well coördinated. It is like a football team without a leader or coördinator. Whether we like it or not, industry, if it is to be efficient, must be organized with greater unity.

The United States of America should be thought of as a great organization for the production of food, clothing, and shelter plus comforts for its 122 millions of people. It needs unification. The states gave up complete independence in the interests of the entire nation; for efficiency, industries hitherto independent must submit to coördinating control. We are all—workers, managers, and investors—units in a great machine, the business world. Extreme individualism is out of date. The engineer, science, and invention have made it out of date. Progress under capitalism demands that Americans organize industry on a national scale. The prevention of duplication, overlapping, and overinvestment in certain fields is a prime requisite for a program of unemployment reduction. Production and consumption should be geared together. If capitalism is unable to achieve greater harmony in industrial America and reduce the lost motion called unemployment, we must be prepared for a rising tide of communist propaganda and sentiment.

Changes in Governmental Structure. Much of our governmental machinery was developed in the pioneer period of our history. It is adapted to a community of relatively scanty population, to bad roads, and to small-scale industry. It was evolved before the railway, the telephone, the automobile, mass production, and extreme heterogeneity of population. The city-manager plan of municipal government represents one hopeful movement in the field of urban control toward placing the technical and clerical affairs of government in the hands of the chosen for other reasons than political expediency. County and state governments in the United States are still in actual practice about as they were in the pioneer stage. In many of the states taxes are levied according to plans formulated during the pre-machine era of our history. Adjustment is sadly needed in the governmental machinery of American states and counties. National government has progressed measurably, but we continue to allow thirteen months to elapse between the election of a Congress and its getting down to regular business, because roads were bad, communication slow, and bridges lacking in 1789—a clear case of control by the dead hand. The federal government is, however, reaching beyond its traditional functions. It is becoming a gatherer, an analyzer, and a publisher of information regarding business and social conditions. It is building the foundations for intelligent direction of business. The federal government, through the Interstate Commerce Commission and the Federal Trade Commission, is exercising a regulatory power which was not anticipated by the founders of our government. Furthermore, the federal government is a very important employer of labor. May we not expect it to point the way toward excellence in labor management?

Labor and the New Day. The revolutionary changes in industry which have been outlined lead inevitably to the suggestion that labor organizations should begin to study their purposes and programs anew. Since science and research are changing business methods and attitudes, science and research should be increasingly used by labor organizations as a basis of a program of industrial relations and bargaining which will square with a new and shifting industrial status.

The conservative American labor organization of today traces its origin to the time in which individualism was supreme, to a time preceding the development of mass production. Like all other groups, a labor organization is subject to social inertia. Its constitution and by-laws, its traditions, the vested interests of its officials, and other conditions make adjustment on its part to a new and changing industrial world very difficult. American labor organizations are today out of step with industry. They are organized mainly as trade or craft unions; they have been thrust into an epoch in which craft lines are becoming less and less sharp and distinct. To an outside observer it seems that too many labor leaders are old in years and are content to think in terms of the days before mass production. They appear to lack the ability or the will to make adjustments to the new.

The Big Problems Confronting Industry. There are two big problems, accompanied by other subsidiary and interwoven ones which the leaders of today's industrial and political life are called upon to tackle: (1) How may unemployment be reduced, and (2) How may dire poverty be eliminated? In an attack upon these questions blind optimism, oratory, or appeal to the emotions in any form is practically useless. The application of scientific principles in a manner similar to that used in the physical sciences is essential.

In order to make a direct and effective attack on these two related problems, it is suggested that the following steps are among those feasible and desirable. (1) Smooth out the business cycle appreciably. (2) Regularize industry to an extent as yet reached only in a few encouraging cases. (3) Find for workers displaced by machines or new methods other suitable jobs; shorten the working day or week; pay a dismissal wage or give unemployment insurance; or make the change so slowly as to keep those now employed on the job until they leave of their own volition, are retired on a pension, or are removed by death. (4) Stabilize the value of the monetary unit—the dollar—so as to eliminate the so-called "dance of the dollar." (5) Broaden the scope of social insurance in the United States. (6) Apply scientific principles to a study of the methods of marketing goods. Successful mass production will be balanced by mass consumption of goods. (7) In order to increase output, discover a way of rewarding producers well rather than rewarding shrewd bargainers highly—as is now too frequently the case. In other words, develop a program which will render it increasingly necessary in many industries to make goods, and goods of a reasonably good quality, in order to make profits. (8) A marked change in management methods is essential to efficiency in production. Absolutism in industry, like absolutism in government, is gradually giving place to a more democratic program. In the words of another, an up-to-date business organization "is coming to be conceived less in terms of an autocracy, wherein all power and initiative come down from the top, and more as a coöperative enterprise wherein functions of management may be exercised all the way down the line." [1]

It seems appropriate to close this brief analysis of the present industrial order by alluding to the views of a capable student of our industrial age. We are told that industry in America is "coming of age." According to Tugwell, the following conditions are essential for the attainment of maturity in industry: "(1) the need to socialize industry, which means to make it serve social ends rather than individual ones; (2) the need to reconstruct industry so as to take advantage of good incentives rather than bad ones in the interest of a better moral world; (3) the need for such a growth of industry as will give us the material basis of life which will enable us to function at our best efficiency." [2]

QUESTIONS

1. Our industrial machinery is very complex. Explain.
2. Give examples of social and industrial maladjustment.

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[1] Soule, G., *The Useful Art of Economics*, pp. 215–216.

[2] *Industry's Coming of Age*, p. 231.

3. What are three of the important industrial changes of the last decade?
4. What is meant by "absolutism in industry"?
5. What do you understand by the statement: Industry is "coming of age"?

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